Data from the Commercial Fishery for Arctic Char, *Salvelinus alpinus* (Linnaeus), in the District of Keewatin, Northwest Territories, 1973-81

G.W. Carder and R.F. Peet

Western Region
Department of Fisheries and Oceans
Winnipeg, Manitoba R3T 2N6

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by

G. W. Carder and R. F. Peet

Western Region
Department of Fisheries and Oceans
Winnipeg, Manitoba R3T 2N6

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ABSTRACT

Carder, G.W., and R.F. Peet. 1983. Data from the commercial fishery for Arctic char, Salvelinus alpinus (Linnaeus), in the district of Keewatin, Northwest Territories. 1973-81. Can. Data Rep. Fish. Aquat. Sci. 357: viii + 65 p.

Data on the length, weight and age of Arctic char were collected during monitoring of ten commercial fishing areas in the district of Keewatin and are presented in this report. Sampling occurred during the years 1973-81, excluding 1978.

Key words: fishery management; gill netting; sampling; monitoring; life history; catch statistics.

RESUME

Carder, G.W., and R.F. Peet. 1983. Data from the commercial fishery for Arctic char, Salvelinus alpinus (Linnaeus), in the district of Keewatin, Northwest Territories. 1973-81. Can. Data Rep. Fish. Aquat. Sci. 357: viii + 65 p.

Ce rapport renferme des données sur la longeur, le poids et l'âge d'ombles chevalier qui ont été recueillies lors du contrôle de dix zones de pêche commerciale dans le district de Keewatin. L'échantillonnage a eu lieu chaque année de 1973 à 1981, à l'exception de 1978.

Mots-clés: gestion des pêches; pêches aux filets maillants; échantillonnage; contrôle; cycle évolutif; statistiques sur les prises.

INTRODUCTION

In 1972 Fisheries and Oceans initiated a program to gather biological information on anadromous Arctic char, Salvelinus alpinus (Linnaeus), caught by the commercial fishery in the District of Keewatin, Northwest Territories (Bond 1974). During the years 1973-81 personnel from Fisheries and Oceans (formerly Fisheries and Marine Service) and the Government of the Northwest Territories (GNWT) continued to monitor the catch. Results of the monitoring program, excluding 1978 when no sampling was done, are summarized in tabular form below.

HISTORY OF THE FISHERY

During August and September of 1948 a preliminary investigation of Arctic char populations was undertaken north of Churchill, Manitoba (Sprules 1952). Data were obtained from the Wilson River system and the Whale Cove area along the coast of Hudson Bay, Northwest Territories (NWT) (Fig. 1). As a result of this survey it was concluded that char were not present in sufficient quantities to warrant the establishment of a commercial fishery.

In 1957 Rankin Nickel Mines began operations at Rankin Inlet, NWT. This caused an influx of Inuit to the new settlement to work in the mine. In 1962 the mine closed and to help alleviate the economic distress caused by the closure, a commercial fishery, which included the harvest of marine mammals was initiated and supported by the Department of Indian and Northern Affairs, and later by the GNWT.

As part of this development, a cannery was established at Daly Bay (Fig. 1) in 1964 as a pilot plant (Lantz and Iredale 1972). Some of the products produced were canned Arctic char, walrus meat, seal meat and smoked muktuk. This plant was constructed with advice on design, equipment and techniques from the Fisheries Research Board of Canada (Lantz 1965). In 1966 it was moved to Rankin Inlet since fish populations in the Daly Bay area were not large enough to provide a supply of fish sufficient to accommodate the capacity of the plant. However, fish resources in Rankin Inlet appeared large enough to permit diversification of products and a year round operation.

The plant was reconstructed at the community of Rankin Inlet and steps were taken to improve the canning and freezing facilities. At this time exploratory fishing commenced to find alternate fish populations to the one in the immediate area to provide a larger resource base for exploitation and to ensure a sustainable supply of fish which would allow the export of production in addition to local sales. To develop a southern market, Arctic char were promoted as a gourmet item. In addition, marine mammal processing was continued for local consumption. However after an initial interest the demand for marine mammal products steadily declined and in 1970 they were discontinued. This decision was also influenced by the discovery that there were high levels of mercury in marine mammal flesh as a result of a general survey for mercury levels in various fishery products that was carried out in the late 1960's.

When marine mammal production ceased, the cannery relied solely on fish processing. Canned fish products were shipped south by air and distributed under the auspices of the Freshwater Fish Marketing Corporation (FFMC) whose main plant was located in Winnipeg, Manitoba. This agency distributed the product to various parts of Canada and the United States. In the mid 1970's the fishery began having major financial problems because of increased transportation costs. Thompson (1976) has pointed out that transportation costs are a major constraint for the effective inter-settlement utilization of the marine mammal harvest in the NWT and the same general comments hold for commercial fishery development.

In 1976 the canning of Arctic char, lake trout and whitefish was discontinued. Since then, the export fishery has concentrated on supplying Arctic char, the species of primary interest, solely as a frozen product to southern markets through the FFMC.

MATERIALS AND METHODS

THE FISHERY

Commercial fishing for anadromous Arctic char occurs primarily during August and early September of each year when char return from the sea to freshwater. Scott and Crossman (1973) and McPhail and Lindsay (1970) give details of the life history pattern of this species.

Fishing methods have remained fairly constant over the years. Fishermen set gillnets in estuaries and mouths of particular rivers along the west coast of Hudson Bay. The nets are commonly stretched out from shore and set, usually on the surface in depths of 4-5 meters. These are lifted twice a day. The nets average 45 to 90 meters in length, and are 20 to 30 meshes deep. The mesh size is 140 mm. Fish are dressed on site (i.e. head on, gills and viscera removed) and either flown by float equipped aircraft or transported by boat to the fish plant at Rankin Inlet.

SAMPLING THE CATCH

Samples were taken either at the fish plant or at various commercial fishing sites along the west coast of Hudson Bay (Fig. 1). Sampling methods and basic information obtained has remained constant over the years. Boxes of char were chosen at random and all char in selected boxes were sampled for fork length ($\pm$1.0 mm) and weights ($\pm$ 50 g). However, it was not always possible to obtain round weight and dressed weights were taken in lieu (note tables 2, 36, 37, 38 and 48 to 71). Saggital otoliths were collected for age determination in the laboratory after the method of Grainger (1953). Survival rates were determined after the method of Robson and Chapman (1961).

DATA ANALYSIS

Data were analyzed using a programmable calculator (Hewlett Packard model 9810-A) and computer facilities located at the University of Manitoba.

The results are summarized in Tables 1 to 71. In Tables 48 to 59 the term commercial test fishery refers to a fishing survey under a DFO Scientific Permit in a particular area to determine if the catch can yield sufficient fish of a commercial size (ie. >45 cm) to warrent continued fishing under a quota promulgated under Schedule V of the N.W.T. fishery regulations. During the test fishing the catch can be sold commercially to ensure efficient utilization. Length Tables 36, 48, 51, 54, 57, 60, 63, 66 and 69 indicate the lower boundary of the length class (e.g. 45 indicates length interval 45.0 cm - 49.9 cm).

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R.W. Moshenko and A.H. Kristofferson reviewed and provided comments on an earlier draft of this report.

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Fig. 1. Map of the Keewatin showing commercial fishing areas.

Table 1. Summary of sampling from the Keewatin commercial fishery, 1973-1977.

LOCATION	DATE	MEAN			RANGE			SEX RATIO (%)	
		FL(cm)	Wt.(gm)	Age(Yr)	FL(cm)	Wt. (gm)	Age(Yr)	M	F
Sandy Point	1973, Aug. 3-8	61.1	3023	9.3	29.0-88.0	250-7500	4-21	37.9	62.1
Sandy Point	1974, Aug. 3-8	62.3	3232	8.8	36.5-83.0	400-7300	5-17	41.1	58.9
Wallace River	1974, Aug. 5-6	63.3	3354	8.7	41.6-86.9	1050-6850	5-13	38.7	61.3
Ferguson River	1974, Aug. 11-12	69.7	4590	11.2	49.0-87.2	1600-9750	6-15	36.4	63.6
Ferguson River	1975, Aug. 20-21	54.4	2281	7.5	30.7-88.6	350-7550	4-16	59.3	40.7
Ferguson River	1976, Aug. 28-31	64.0	3708	10.4	35.0-87.8	650-8750	6-19	57.9	42.1
Corbett Inlet	1974, Aug. 31-Sept. 2	61.7	3197	8.0	28.5-81.5	300-6300	3-14	71.6	28.4
Corbett Inlet	1975, Aug. 27-29	61.4	3122	8.6	29.1-78.7	325-5350	4-15	62.8	37.2
Corbett Inlet	1976, Aug. 19	60.7	2495*	10.1	45.5-76.6	950-4550*	6-17	-	-
Corbett Inlet	1977, Aug. 19-21	62.1	3116	9.7	46.4-87.0	1350-7000	7-15	68.8	31.2
Diana Estuary	1975, June 21-22	69.6	3524	10.2	46.2-82.2	1000-6100	6-15	79.3	20.7
Barbour Bay/Stoney Pt.	1974, Aug. 21-24	52.6	1897	7.7	35.2-77.2	400-4600	5-12	51.0	49.0
Barbour Bay/Stoney Pt.	1975, Aug. 15-17	54.8	1876	8.8	28.8-73.4	250-3650	4-15	65.0	35.0
Stony Pt.	1976, Aug. 23-24	56.7	2373	10.4	34.0-78.2	400-5600	5-17	55.3	44.7
Stony Pt.	1977, Aug. 23-Sept. 6	61.1	2937	10.6	38.9-80.5	500-6350	6-17	81.0	19.0

Weights are round weights (viscera and gills not removed) unless otherwise indicated.

* Dressed wt. (viscera and gills removed).

Table 2. Summary of sampling from the Keewatin commercial fishery, 1979-1981.

LOCATION	DATE	MEAN			RANGE		
		FL(cm)	Wt.*(gm)	Age(Yr)	FL(cm)	Wt.*(gm)	Age(Yr)
Ferguson River	1980, August 11-15	64.8	3395	10.0	49.2-80.5	1500-6600	7-17
Ferguson River	1981, August 8-11	63.1	3036	10.0	52.6-77.9	1700-5500	7-20
Corbett Inlet	1979, August 6-18	63.6	2883	10.1	47.8-80.5	1200-5500	7-14
Rankin Inlet	1979, August 2-4	60.4	2338	10.1	43.2-82.7	800-5700	6-14
Rankin Inlet	1980, August 1-6	61.7	2530	10.1	51.0-81.5	1400-5300	8-15
Rankin Inlet	1981, August 1-7	62.4	2536	11.0	51.0-71.0	1300-3900	9-15
Baker Foreland	1979, August 13	60.4	2422	10.8	48.0-78.0	1000-4600	8-17
Josephine River	1979, August 25	59.8	2383	10.0	45.5-79.0	1000-5000	7-14

* Weight = dressed weight (gills and viscera removed).

Table 1. Summary of length and weight data, and weight data over the range of fork lengths, number and % category, for grayling from Area [illegible] during the commercial fishery in the Sandy Point area, district of Mackenzie, Northwest Territories, August 5 - 8, 1977.

Length Group (cm)	Combined Sample: Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Average	Range	Cond. Factor**	Males: Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Average	Range	Cond. Factor	Females: Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Average	Range	Cond. Factor
25.0-29.9	1 (1.0) ***	29.0	329	250	-	1.0274	-	-	-	-	-	-	-	-	-	-	-	-
30.0-34.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35.0-39.9	3 (3.0)	37.6	696	767	750-800	1.4359	[illegible]	[illegible]	[illegible]	800	-	1.4019	[illegible]	37.5	733	750	-	1.4114
40.0-44.9	1 (1.0)	42.0	959	1000	-	1.3497	-	-	-	-	-	-	[illegible]	42.0	1010	1000	-	1.3497
45.0-49.9	4 (4.0)	48.0	1461	1475	1400-1600	1.2824	-	-	-	-	-	-	[illegible]	49.2	1503	1500	1400-1600	1.2610
50.0-54.9	12 (12.0)	52.5	1827	1833	1700-2100	1.2646	[illegible]	52.4	1845	1790	1750-1800	1.2408	[illegible]	52.1	[illegible]	1860	1700-2100	1.2854
55.0-59.9	21 (21.0)	57.1	2328	2326	1800-2750	1.2477	[illegible]	57.2	2377	2356	2000-2750	1.2523	[illegible]	57.0	2318	2332	1800-2600	1.2365
60.0-64.9	22 (22.0)	62.1	2967	2932	2250-3500	1.2154	[illegible]	62.2	3029	2980	2500-3400	1.2335	[illegible]	62.1	2927	2918	2250-3500	1.2141
65.0-69.9	20 (20.0)	66.8	3663	3768	2800-4400	1.2656	7 (19.0)	67.4	3821	4021	3600-4400	1.3144	[illegible]	66.4	[illegible]	3630	2800-4400	1.2378
70.0-74.9	9 (9.0)	71.3	4422	4594	3800-5500	1.2684	6 (16.1)	71.6	4551	4725	4250-5500	1.2868	3 (5.1)	70.6	4150	4333	3800-4600	1.2275
75.0-79.9	4 (4.0)	77.4	5606	5100	4500-5500	1.1027	-	-	-	-	-	-	4 (6.8)	77.4	5331	5100	4500-5500	1.1027
80.0-84.9	2 (2.0)	82.0	6623	7000	6500-7500	1.2682	2 (5.1)	82.0	6738	7000	6500-7500	1.2682	-	-	-	-	-	-
85.0-89.9	1 (1.0)	88.0	8122	6400	-	0.9391	1 (2.8)	88.0	8265	6400	-	0.9391	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of Fish :	100	100	36	36	59	59
Range :	29.0-88.0	250-7500	28.5-88.0	800-7500	37.0-79.5	750-5500
Mean :	61.1	3023	63.3	3410	61.0	2918
Stand. Dev. :	9.69	1307	9.93	1531	8.59	1075
Stand. Error:	0.97	131	1.68	259	1.13	141

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = $(0.0196)^{2.8889}$

for males : Weight (g) = $(0.0196)^{2.8928}$

for females : Weight (g) = $(0.0385)^{2.7221}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 4. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Sandy Point area, district of Keewatin, Northwest Territories, August 3 - 8, 1973.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
4	1 (1.1)**	29.0	-	250	-	1.0251	-	-	-	-	-	-	-	-	-	-	-	-
6	7 (8.0)	49.8	37.0-55.0	1614	750-2000	1.2869	1 (3.0)	54.0	-	1800	-	1.1431	3 (6.0)	47.2	37.0-55.0	1450	750-2000	1.3340
7	12 (13.6)	54.9	38.5-64.5	2175	800-3400	1.2791	6 (.2	53.7	38.5-64.5	2108	800-3400	1.2932	5 (10.0)	56.0	51.0-59.0	2290	1750-2600	1.2963
8	19 (21.6)	58.0	42.0-68.5	2421	1000-4000	1.2067	8 24.2)	60.1	55.0-68.5	2669	2000-4000	1.2007	11 (22.0)	56.4	42.0-63.0	2241	1000-3250	1.2110
9	17 (19.3)	62.0	49.5-70.0	3018	1500-5000	1.2473	6 (18.2)	63.8	57.5-70.0	3500	2500-5000	1.3228	11 (22.0)	61.0	49.5-67.0	2755	1500-3500	1.2060
10	9 (10.2)	64.3	57.0-70.0	3639	2600-4500	1.3500	5 (15.2)	66.6	58.0-70.0	4030	2600-4500	1.3481	4 (8.0)	61.4	57.0-66.0	3150	2600-4000	1.3523
11	7 (8.0)	72.3	62.0-88.0	4514	2700-6400	1.1882	3 (9.1)	77.0	71.0-88.0	5167	4500-6400	1.1433	4 (8.0)	68.8	62.0-79.5	4025	2700-5500	1.2219
12	5 (5.7)	68.1	62.5-75.5	3750	3000-5000	1.1739	1 (3.0)	72.5	-	4250	-	1.1153	4 (8.0)	67.0	62.5-75.5	3625	3000-5000	1.1885
13	3 (3.4)	69.8	61.0-78.0	3600	2500-4500	1.0447	-	-	-	-	-	-	3 (6.0)	69.8	61.0-78.0	3600	2500-4500	1.0447
14	5 (5.7)	72.2	67.0-82.5	5070	3500-7500	1.3165	2 (6.1)	78.3	74.0-82.5	6500	5500-7500	1.3465	3 (6.0)	68.2	67.0-70.5	4117	3500-4600	1.2965
15	2 (2.3)	72.5	63.5-81.5	4950	3400-6500	1.2643	1 (3.0)	81.5	-	6500	-	1.2007	1 (2.0)	63.5	-	3400	-	1.3779
21	1 (1.1)	76.5	-	5400	-	1.0262	-	-	-	-	-	-	1 (2.0)	76.5	-	5400	-	1.2062
Number of fish :	88						33						50					
Range in age :	4-21						6-15						6-21					
Mean age :	9.3						9.2						9.8					
Stand. Dev. :	2.66						2.18						2.8					
Stand. Error :	0.28						0.38						0.40					
Survival Rate :	66.20***						61.36						69.84					
Age classes used :	9-21						9-15						10-21					
Stand. Error Surv.:	3.93						7.47						5.64					

* Condition factors were calculated from the formula: Condition factor = $\frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 5. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5, 10, 15 cm mesh) during the commercial fishery in the Sandy Point area, district of Keewatin, Northwest Territories, August 1 - 8, 1973.

| Length Group (cm) | Age (years) | | |

Table 6. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Wallace River area, district of Keewatin, Northwest Territories, August 5 - 6, 1974.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
40.0-44.9	1 (0.9)***	41.6	1008	1050	-	1.4585	-	-	-	-	-	-	1 (1.5)	41.6	1002	1050	-	1.4585
45.0-49.9	7 (6.3)	47.6	1459	1369	1080-1600	1.2686	2 (4.7)	46.4	4366	1325	1300-1350	1.3305	5 (7.4)	48.1	1498	1386	1080-1600	1.2438
50.0-54.9	10 (9.0)	53.2	1981	1955	1800-2100	1.3027	6 (14.0)	53.5	2009	1983	1800-2100	1.2927	4 (5.9)	52.6	1920	1913	1800-2000	1.3177
55.0-59.9	16 (14.4)	57.6	2464	2624	2180-3250	1.3721	3 (7.0)	57.7	2465	2477	2180-2750	1.2866	13 (19.1)	57.6	2471	2658	2250-3250	1.3918
60.0-64.9	36 (32.4)	62.3	3056	3027	2400-3850	1.2519	13 (30.2)	62.0	2996	3100	2400-3850	1.2968	23 (33.8)	62.5	3099	2985	2500-3450	1.2264
65.0-69.9	16 (14.4)	67.2	3763	3809	2750-4600	1.2517	7 (16.3)	67.5	3771	3857	2750-4600	1.2445	9 (13.2)	67.0	3758	3772	3200-4300	1.2574
70.0-74.9	14 (12.6)	72.7	4671	4729	3500-6250	1.2278	8 (18.6)	72.6	4594	4444	3500-5250	1.1604	6 (8.8)	72.8	4731	5108	4300-6250	1.3177
75.0-79.9	9 (8.1)	77.3	5528	5706	5000-6850	1.2367	3 (7.0)	76.4	5276	5667	5000-6500	1.2743	6 (8.8)	77.8	5688	5725	5100-6850	1.2179
80.0-84.9	1 (0.9)	84.5	7060	6100	-	1.0110	-	-	-	-	-	-	1 (1.5)	84.5	7153	6100	-	1.0110
85.0-89.9	1 (0.9)	86.9	7624	6600	-	1.0057	1 (2.3)	86.9	7479	6600	-	1.0057	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	111	111	43	43	68	68
Range :	41.6-86.9	1050-6850	46.0-86.9	1300-6600	41.6-84.5	1050-6850
Mean :	63.3	3354	64.2	3452	62.8	3292
Stand. Dev. :	8.67	1282	8.73	1277	8.65	1291
Stand. Error:	0.83	122	1.35	197	1.06	158

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0360) Fork length (cm)$^{2.7467}$

for males : Weight (g) = (0.0416) Fork length (cm)$^{2.7100}$

for females : Weight (g) = (0.0323) Fork length (cm)$^{2.7741}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 7. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 to 14.0 cm mesh) during the commercial fishery in the Wallace River area, district of Keewatin, Northwest Territories, August 5 - 6, 1974.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
5	1 (1.0)**	41.6	-	1050	-	1.4585	-	-	-	-	-	-	1 (1.6)	41.6	-	1050	-	1.4585
6	10 (10.0)	51.5	46.0-59.0	1751	1080-2600	1.2576	5 (12.2)	52.0	46.0-55.4	1856	1300-2180	1.3102	5 (8.3)	51.0	46.0-59.0	1646	1080-2600	1.2051
7	14 (13.9)	57.3	49.0-64.9	2443	1500-3250	1.2815	4 (9.8)	59.0	54.2-63.0	2563	2100-3000	1.2491	10 (16.6)	56.7	49.0-64.9	2395	1500-3250	1.2945
8	26 (25.7)	61.7	52.0-74.6	3075	1900-5000	1.2969	10 (24.4)	62.6	54.0-74.6	3265	1900-5000	1.2997	16 (26.6)	61.2	52.0-68.4	2956	2000-4000	1.2931
9	18 (17.8)	65.3	55.0-79.2	3548	2250-5900	1.2493	7 (17.1)	66.7	60.2-74.0	3693	2750-4600	1.2449	11 (18.3)	64.5	55.0-79.2	3455	2250-5900	1.2521
10	16 (15.8)	68.2	58.6-76.2	4059	2500-5750	1.2557	7 (17.1)	66.4	59.1-73.1	3579	2500-4350	1.2024	9 (15.0)	69.5	58.6-76.2	4433	2850-5750	1.2971
11	9 (8.9)	67.8	63.8-76.1	4200	2900-6500	1.3121	4 (9.8)	69.2	64.0-76.1	4538	3500-6500	1.3359	5 (8.3)	66.6	63.8-74.8	3930	2900-6250	1.2931
12	4 (4.0)	77.2	70.6-86.9	5288	4300-6600	1.1550	3 (7.3)	79.3	73.5-86.9	5617	5000-6600	1.1326	1 (1.6)	70.6	-	4300	-	1.2220
13	3 (3.0)	78.7	72.0-84.5	5483	3500-6850	1.1040	1 (2.4)	72.0	-	3500	-	0.9377	2 (3.3)	82.0	79.5-84.5	6475	6100-6850	1.1872
Number of fish :	101						41						60					
Range in age :	5-13						6-13						5-13					
Mean age :	8.7						8.9						8.6					
Stand. Dev. :	1.78						1.85						1.73					
Stand. Error :	0.18						0.29						0.22					
Survival Rate :	54.21***						57.14						52.63					
Age classes used :	9-13						9-13						9-13					
Stand. Error Surv.:	4.77						6.91						6.49					

* Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 8. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Wallace River area, district of Keewatin, Northwest Territories, August 5 - 6, 1974.

Length Group (cm)	Age (years)																			
	5		6		7		8		9		10		11		12		13		Total			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Combined	Av. Age
40.0-44.9		1																		1	1 (1.0)*	5.0
45.0-49.0			1	3		2													1	5	6 (5.9)	6.3
50.0-54.9			3	1	1	2	2	1											6	4	10 (9.9)	6.9
55.0-59.0			1	1	1	3		5		2	1	1							3	12	15 (14.9)	7.9
60.0-64.9					2	3	6	7	2	6	2	1	1	2					13	19	32 (31.6)	8.6
65.0-69.9								3	4	1	2	2	1	2					7	8	15 (14.9)	9.5
70.0-74.9							2		1		2	3	1	1	1	1	1		8	5	13 (12.9)	10.3
75.0-79.9										2		2	1		1			1	2	5	7 (6.9)	10.6
80.0-84.9																		1		1	1 (1.0)	13.0
85.0-89.0															1				1		1 (1.0)	12.0
Total by sex		1	5	5	4	10	10	16	7	11	7	9	4	5	3	1	1	2	41 (40.6)	60 (59.4)		
Total combined	1 (1.0)*		10 (9.9)		14 (13.9)		26 (25.7)		18 (17.8)		16 (15.8)		9 (8.9)		4 (4.0)		3 (3.0)				101	
Av. fork length	41.6		51.5		57.3		61.7		65.3		68.2		67.8		77.2		78.7					

* Bracketed figures in columns/rows indicate percent of total fish aged.

Table 9. Summary of length and weight data, and weight data per 1cm fork length, combined and by category, for arctic char taken by gill net (1.5 in - 16.0 cm mesh) during the commercial fishery in the Sandy Point area, District of Keewatin, Northwest Territories, August 3 - 6, 1976.

Length Group (cm)	Combined Sample: Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Males: Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Females: Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
35.0-39.9	3 (3.3)***	37.9	579	583	400-750	1.0691	1 (2.7)	37.2	544	600	-	1.1613	2 (3.8)	38.2	585	575	400-750	1.0010
40.0-44.9	2 (2.2)	43.0	876	835	750-920	1.0300	1 (2.7)	44.5	972	920	-	1.0460	1 (1.9)	41.4	765	750	-	1.0570
45.0-49.9	6 (6.7)	48.2	1274	1222	1120-1400	1.0942	4 (10.8)	47.9	1233	1170	1120-1200	1.0664	2 (3.8)	48.7	1314	1325	1250-1400	1.1500
50.0-54.9	9 (10.0)	52.2	1654	1586	1400-2000	1.1135	2 (5.4)	52.1	1618	1470	1460-1480	1.0431	7 (13.2)	52.3	1667	1619	1400-2000	1.1336
55.0-59.9	8 (8.9)	57.7	2296	2461	1640-2850	1.2798	1 (2.7)	59.5	2487	2500	-	1.1868	7 (13.2)	57.4	2273	2456	1540-2850	1.2931
60.0-64.9	27 (30.0)	62.2	2937	3125	2480-3750	1.2951	10 (27.0)	61.7	2797	2973	2580-3400	1.2636	17 (32.1)	62.6	3035	3215	2750-3750	1.3134
65.0-69.9	15 (16.7)	67.4	3820	3787	2750-4750	1.2378	6 (16.2)	67.0	3652	3717	2750-4750	1.2331	9 (17.0)	67.6	3922	3833	3250-4250	1.2408
70.0-74.9	12 (13.3)	72.4	4830	4767	4250-5750	1.2552	7 (18.9)	72.2	4652	4586	4250-5000	1.2222	5 (9.4)	72.8	5021	5020	4600-5700	1.3015
75.0-79.9	7 (7.8)	78.0	6165	5786	5250-6500	1.2185	4 (10.8)	78.0	5973	5813	5250-6500	1.2219	3 (5.7)	77.9	6293	5750	5250-6000	1.2140
80.0-84.9	1 (1.1)	83.0	7557	7300	-	1.2767	1 (2.7)	83.0	7304	7300	-	1.2767	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	90	90	37	37	53	53
Range :	36.5-83.0	400-7300	37.2-83.0	600-7300	36.5-79.3	400-6000
Mean :	62.3	3232	63.7	3414	61.4	3105
Stand. Dev. :	9.91	1466	10.80	1643	9.22	1331
Stand. Error:	1.05	155	1.80	274	1.28	185

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0039) Fork length (cm)$^{3.2762}$

for males : Weight (g) = (0.0045) Fork length (cm)$^{3.2361}$

for females : Weight (g) = (0.0031) Fork length (cm)$^{3.3346}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 10. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Sandy Point area, district of Keewatin, Northwest Territories, August 3 - 4, 1974.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm)		Weight (-)		Cond.* Factor	Number of fish	Fork Length (cm)		Weight (g)		Cond. Factor	Number of fish	Fork Length (cm)		Weight (g)		Cond. Factor
		Mean	Range	Mean	Range			Mean	Range	Mean	Range			Mean	Range	Mean	Range	
5	2 (2.5)**	42.0	37.2-46.8	890	600-1180	1.1584	2 (6.3)	42.0	37.2-46.8	890	600-1180	1.1584	-	-	-	-	-	-
6	7 (8.9)	47.2	36.5-52.5	1184	400-1600	1.0671	2 (6.3)	50.2	47.9-52.5	1320	1180-1460	1.0413	5 (10.6)	45.9	36.5-52.0	1130	400-1600	1.0746
7	12 (15.2)	56.2	44.5-62.9	2258	920-3400	1.2007	7 (21.9)	55.8	44.5-62.9	2179	920-3400	1.1628	5 (10.6)	56.6	47.5-62.8	2370	1250-3250	1.2537
8	14 (17.7)	62.3	48.3-71.6	2964	1200-4250	1.1998	7 (21.9)	62.9	48.3-71.6	2957	1200-4250	1.1489	7 (14.9)	61.6	55.7-69.9	2970	1540-4000	1.2508
9	16 (20.3)	63.7	53.7-78.9	3375	1400-5750	1.2748	4 (12.5)	66.9	60.0-78.9	3700	2750-5750	1.2048	12 (25.5)	62.6	53.7-72.1	3267	1400-5750	1.2981
10	15 (19.0)	65.2	52.2-76.1	3645	1480-5250	1.2689	6 (18.8)	70.0	63.1-76.1	4433	3250-5250	1.2934	9 (19.1)	62.1	52.2-73.5	3120	1480-5000	1.2526
11	8 (10.1)	70.6	57.7-78.2	4544	2500-5750	1.2770	3 (9.4)	73.9	70.0-78.2	5117	4600-5750	1.2659	5 (10.6)	68.6	57.7-77.0	4200	2500-5250	1.2837
12	2 (2.5)	73.3	69.0-77.5	4875	3750-6000	1.2153	-	-	-	-	-	-	2 (4.3)	73.3	69.0-77.5	4875	3750-6000	1.2753
13	2 (2.5)	72.9	72.8-73.0	4625	4500-4750	1.1937	1 (3.1)	72.8	-	4500	-	1.1663	1 (2.1)	73.0	-	4750	-	1.2210
17	1 (1.3)	69.9	-	4100	-	1.2005	-	-	-	-	-	-	1 (2.1)	69.9	-	4100	-	1.2005

Number of fish	: 79	32	47
Range in age	: 5-17	5-13	6-17
Mean age	: 8.8	8.4	9.1
Stand. Dev.	: 2.01	1.86	2.08
Stand. Error	: 0.23	0.33	0.30
Survival Rate	: 44.90***	53.57	48.48
Age classes used	: 10-17	9-13	10-17
Stand. Error Surv.	: 6.98	9.87	8.45

* Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 11. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net 15.3 to 16.0 cm mesh during the commercial fishery in the Sandy Point area, district of Keewatin, Northwest Territories, August 3 - 4, 1974.

Length Group (cm)	Age (years)																							
	5		6		7		8		9		10		11		12		13		17		Total			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Combined	Av. Age
35.0-39.9	1			2																	1	2	3 (3.8)*	5.7
40.0-44.9					1																1		1 (1.3)	7.0
45.0-49.9	1		1	1	1	1	1														4	2	6 (7.6)	6.5
50.0-54.9			1	2	1	1				1		2									2	6	8 (10.1)	7.6
55.0-59.9						1		3		2				1								7	7 (8.9)	8.6
60.0-64.9					4	2	3	2	2	6	1	5									10	15	25 (31.7)	8.6
65.0-69.9							2	2	1	1	2	1		2		1				1	5	8	13 (16.5)	10.1
70.0-74.9							1			2	2	1	2	1			1	1			6	5	11 (13.9)	10.5
75.0-79.9									1		1		1	1		1					3	2	(6.3)	10.6
Total by sex	2		2	5	7	5	7	7	4	12	6	9	3	5		2	1	1		1	32 (40.5)	17 (59.5)		
Total combined	2 (2.5)*		7 (8.9)		12 (15.2)		14 (17.7)		16 (20.3)		15 (19.0)		8 (10.1)		2 (2.5)		2 (2.5)		1 (1.3)				79	
Av. fork length	42.0		47.2		56.2		62.3		63.7		65.3		70.6		73.3		72.9		69.9					

* Bracketed figures in columns/rows indicate percent of total fish aged.

Table 12. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in / 14.0 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 11 - 12, 1974.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
45.0-49.9	1 (1.0)***	49.0	1616	1600	-	1.3600	-	-	-	-	-	-	1 (1.3)	49.0	1614	1600	-	1.3600
50.0-54.9	5 (4.8)	52.4	1954	1880	1750-2100	1.3084	1 (2.3)	50.6	1772	1750	-	1.3508	4 (5.2)	52.8	1997	1913	1750-2100	1.2978
55.0-59.9	11 (10.6)	58.4	2654	2686	2300-3250	1.3493	1 (2.3)	56.3	2395	2300	-	1.2869	10 (13.0)	58.6	2687	2725	2300-3250	1.3554
60.0-64.9	19 (18.3)	61.6	3086	3139	2750-3700	1.3436	-	-	-	-	-	-	19 (24.7)	61.6	3098	3139	2750-3700	1.3436
65.0-69.9	24 (23.1)	67.5	3997	4038	3050-4800	1.3150	8 (18.2)	67.2	3946	4007	3600-4500	1.3212	16 (20.8)	67.6	4037	4053	3050-4800	1.3119
70.0-74.9	26 (25.0)	72.3	4853	4792	4000-6000	1.2683	6 (13.6)	73.3	5043	4850	4300-5200	1.2316	20 (26.0)	72.0	4831	4775	4000-6000	1.2794
75.0-79.9	16 (15.4)	77.6	5927	6103	4900-7500	1.3031	11 (25.0)	77.7	5944	6123	5250-7500	1.3074	5 (6.5)	77.5	5958	6060	4900-7000	1.2935
80.0-84.9	15 (14.4)	82.2	6975	6973	6250-9000	1.2564	13 (29.5)	82.2	6968	6950	6250-9000	1.2532	2 (2.6)	82.4	7095	7125	7000-7250	1.2773
85.0-89.9	4 (3.8)	85.8	7874	7850	6750-9750	1.2411	4 (9.1)	85.8	7864	7850	6750-9750	1.2411	-	-	-	-	-	-
Parameter		Fork Length		Weight				Fork Length		Weight				Fork Length		Weight		
No. of fish :		121		121				44		44				77		77		
Range :		49.0-87.2		1600-9750				50.6-87.2		1750-9750				49.0-83.9		1600-7250		
Mean :		69.7		4590				76.1		5780				66.1		3910		
Stand. Dev. :		8.89		1660				7.89		1627				7.24		1251		
Stand. Error:		0.81		152				1.20		248				0.83		144		

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0270) * Fork length $(cm)^{2.8264}$

for males : Weight (g) = (0.0275) * Fork length $(cm)^{2.8220}$

for females : Weight (g) = (0.0247) * Fork length $(cm)^{2.8489}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

***Bracketed figures indicate pe.cent of number sampled by category.

Table 13. Summary of age data, and length and weight data over the range of ages combined and by category, for anadromous Arctic char taken by gill net (1½ in. stretch mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 11 - 12, 1974.

Age (No. of annuli)	Combined Sample					Males					Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
6	1 (1.0)**	50.6	-	1750	-	1.3308	1 (2.6)	50.6	-	1750	-	1.3308	-	-	-	-	-	-
7	2 (2.0)	53.5	49.0-58.0	2050	1600-2500	1.3206	-	-	-	-	-	-	2 (3.0)	53.5	49.0-58.0	2050	1600-2500	1.3206
8	8 (7.7)	59.4	50.8-68.2	2669	1750-3900	1.2527	1 (2.6)	68.2	-	3900	-	1.2299	7 (10.6)	58.2	50.8-67.6	2493	1750-3100	1.2561
9	12 (11.5)	61.0	53.9-71.5	3133	2000-4700	1.3501	1 (2.6)	56.3	-	2300	-	1.2889	11 (16.6)	61.5	53.9-71.5	3209	2000-4700	1.3057
10	14 (13.5)	63.1	57.3-75.0	3436	2500-6000	1.3423	3 (7.9)	72.5	69.2-75.0	5000	4100-6000	1.2995	(16.6)	60.5	57.3-67.5	3009	2500-4000	1.3540
11	23 (22.1)	71.2	60.4-81.0	4815	2750-7500	1.3047	11 (28.9)	74.9	66.5-81.0	5550	3750-7500	1.3060	12 (18.2)	67.8	60.4-79.0	4142	2750-7000	1.3036
12	17 (16.3)	74.3	61.4-84.7	5400	3000-9000	1.2874	7 (18.4)	80.9	72.8-84.7	6821	4300-9000	1.2726	10 (15.2)	69.7	61.4-75.2	4405	3000-5000	1.2977
13	10 (9.6)	76.8	70.0-87.2	5865	4000-9750	1.2620	5 (13.2)	82.1	75.2-87.2	7190	5800-9750	1.2871	5 (7.6)	71.6	70.0-73.9	4540	4000-5200	1.2370
14	14 (13.5)	76.1	64.1-85.2	5671	3600-7300	1.2748	8 (21.1)	79.7	73.3-85.2	6169	4900-7300	1.2126	6 (9.1)	71.2	64.1-80.9	5008	3600-7250	1.3577
15	3 (2.9)	79.8	75.9-85.6	6267	5300-7000	1.2326	1 (2.6)	85.6	-	7000	-	1.1160	2 (3.0)	77.0	75.9-78.0	5900	5300-6500	1.2909
Number of fish	:	104					38						66					
Range in age	:	6-15					6-15						7-15					
Mean age	:	11.2					11.8						10.8					
Stand. Dev.	:	2.02					1.87						2.01					
Stand. Error	:	0.20					0.30						0.25					
Survival Rate	:	52.22 ***					54.55						51.11					
Age classes used	:	12-15					12-15						12-15					
Stand. Error Surv.	:	5.20					7.33						7.29					

* Condition factors were calculated from the formula: Condition factor = $\frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 14. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in 14.0 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 11 - 12, 1974.

Length Group (cm)	Age (years)																							
	6		7		8		9		10		11		12		13		14		15		Total			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Combined	Av. Age
45.0-49.9				1																		1	1 (0.9)*	7.0
50.0-54.9	1					3		1													1	4	5 (4.8)	7.8
55.0-59.9				1		1	1	2		5											2	8	10 (9.6)	9.2
60.0-64.9						2		6		5		4		1				1				19	19 (18.3)	10.0
65.0-69.9					1	1		1	1	1	3	3		4				2			5	12	17 (16.4)	11.0
70.0-74.9								1	1		2	4	1	4		5	1	2			5	16	21 (20.0)	11.7
75.0-79.0									1		4	1		1	2		3			2	10	4	14 (13.0)	11.0
80.0-84.9											2		6		1		3	1			12	1	13 (12.5)	12.5
85.0-89.9															2		1		1		4		4 (3.8)	13.8
Total by sex	1			2	1	7	1	11	3	11	11	12	7	10	5	5	8	6	1	2	39 (37.5)	65 (62.5)		
Total combined	1 (1.0)*		2 (1.9)		8 (7.7)		12 (11.5)		14 (13.5)		23 (22.1)		17 (16.3)		10 (9.6)		14 (13.5)		3 (2.9)				104	
Av. fork length	50.6		53.5		59.4		61.0		63.1		71.2		74.3		76.8		76.1		79.8					

* Bracketed figures in columns/rows indicate percent of total fish aged.

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Table 15. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill nets (various sizes of mesh) during the commercial fishery in the Corbett Inlet area, district of Mackenzie, Northwest Territories, August 2 - September 2, 1974.

Length Group (cm)	Combined Sample: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.*	Average	Range	Cond.** Factor	Males: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.	Average	Range	Cond. Factor	Females: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.	Average	Range	Cond. Factor
25.0-29.9	1 (0.6)***	28.5	265	300	-	1.2899	-	-	-	-	-	-	-	-	-	-	-	-
30.0-34.9	1 (0.6)	32.5	398	325	-	0.9867	-	-	-	-	-	-	-	-	-	-	-	-
35.0-39.9	6 (3.8)	36.7	582	538	450-780	1.1042	4 (3.6)	36.7	606	563	460-780	1.1305	1 (2.3)	37.5	618	520	-	0.9861
40.0-44.9	5 (3.1)	42.9	946	920	800-1050	1.1613	-	-	-	-	-	-	4 (9.1)	42.8	931	906	800-1050	1.1513
45.0-49.9	5 (3.1)	47.4	1290	1285	1200-1425	1.2086	1 (0.9)	47.6	1341	1200	-	1.1127	4 (9.1)	47.3	1269	1306	1200-1425	1.2326
50.0-54.9	13 (8.2)	52.6	1784	1696	1075-2275	1.1842	8 (7.2)	53.0	1862	1721	1075-2275	1.1548	5 (11.4)	52.0	1701	1656	1500-1780	1.1792
55.0-59.9	30 (18.9)	57.4	2342	2467	1820-3050	1.2987	23 (20.7)	57.5	2388	2470	1820-3050	1.2921	7 (15.9)	57.1	2273	2457	2100-2750	1.3207
60.0-64.9	38 (23.9)	62.5	3052	3176	2400-3950	1.3012	26 (23.4)	62.5	3080	3246	2800-3950	1.3289	12 (27.3)	62.5	3006	3025	2400-3500	1.2413
65.0-69.9	24 (15.1)	66.7	3738	3796	2850-5000	1.2778	16 (14.4)	66.8	3774	3897	2850-5000	1.3099	8 (18.2)	66.6	3660	3594	2950-4400	1.2134
70.0-74.9	20 (12.6)	72.3	4804	5017	3900-6200	1.3274	17 (15.3)	72.4	4826	5144	3990-6200	1.3560	3 (6.8)	71.7	4599	4300	3900-4800	1.1651
75.0-79.9	14 (8.8)	77.6	5988	5411	4300-6300	1.1568	14 (12.6)	77.6	5965	5411	4300-6300	1.1568	-	-	-	-	-	-
80.0-84.9	2 (1.3)	80.8	6791	4750	4500-5000	0.9039	2 (1.8)	80.8	6748	4750	4500-5000	0.9039	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	159	159	111	111	44	44
Range :	28.5-81.5	300-6300	35.2-81.5	460-6300	37.5-73.3	520-4800
Mean :	61.7	3197	64.1	3545	58.1	2564
Stand. Dev. :	10.54	1432	9.50	1395	8.97	1073
Stand. Error:	0.84	114	0.91	133	1.37	164

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0078) Fork length (cm)$^{3.1141}$

for males : Weight (g) = (0.0101) Fork length (cm)$^{3.0538}$

for females : Weight (g) = (0.0083) Fork length (cm)$^{3.0954}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category

Table 16. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in - 14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 31 - September 2, 1974.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
3	2 (1.3)**	31.9	28.5-35.2	400	300-500	1.2212	1 (1.0)	35.2	-	500	-	1.1464	-	-	-	-	-	-
4	6 (4.0)	37.0	32.5-40.6	572	325-825	1.0902	3 (2.9)	37.2	36.5-38.4	587	460-780	1.1252	2 (4.7)	39.1	37.5-40.6	673	520-825	1.1094
5	6 (4.0)	45.0	35.6-54.2	967	450-1300	1.0560	1 (1.0)	54.2	-	1075	-	0.6752	3 (7.0)	45.6	44.0-48.5	1100	950-1300	1.1542
6	16 (10.6)	52.9	42.4-60.4	1934	800-2950	1.2644	9 (8.7)	55.6	52.2-60.4	2324	1640-2950	1.3427	7 (16.3)	49.5	42.4-54.1	1432	800-1775	1.1637
7	40 (26.5)	58.9	50.0-65.3	2650	1280-3800	1.2829	31 (29.8)	58.9	50.0-64.5	2668	1280-3800	1.2840	9 (20.9)	58.8	50.9-65.3	2587	1780-3500	1.2792
8	35 (23.2)	62.8	45.9-70.5	3299	1200-5000	1.3118	24 (23.1)	63.6	55.8-70.5	3479	2100-5000	1.3361	11 (25.6)	60.9	45.9-66.5	2905	1200-3700	1.2588
9	13 (8.6)	66.1	57.0-71.2	3858	2100-5700	1.3083	7 (6.7)	68.3	65.0-70.6	4357	3300-5700	1.3610	6 (14.0)	63.6	57.0-71.2	3275	2100-4800	1.2468
10	9 (6.0)	71.0	66.0-75.5	4694	3600-5900	1.3004	7 (6.7)	71.7	66.0-75.5	4929	3600-5900	1.3271	2 (4.7)	68.6	66.4-70.8	3875	3850-3900	1.2070
11	8 (5.3)	76.1	71.2-81.5	5094	4200-5800	1.1693	7 (6.7)	76.5	71.2-81.5	5221	4500-5800	1.1840	1 (2.3)	73.3	-	4200	-	1.0664
12	7 (4.6)	76.0	68.2-79.8	5143	3250-6300	1.1600	7 (6.7)	76.0	68.2-79.8	5143	3250-6300	1.1600	-	-	-	-	-	-
13	7 (4.6)	71.9	68.0-75.9	4584	3900-6200	1.2394	5 (4.8)	73.1	70.9-75.9	4758	3990-6200	1.2260	2 (4.7)	68.8	68.0-69.6	4150	3900-4400	1.2727
14	2 (1.3)	73.1	66.6-79.5	4425	2850-6000	1.0794	2 (2.0)	73.1	66.6-79.5	4425	2850-6000	1.0794	-	-	-	-	-	-
Number of fish :	151						104						43					
Range in age :	3-14						3-14						4-13					
Mean age :	8.0						8.4						7.6					
Stand. Dev. :	2.29						2.29						1.97					
Stand. Error :	0.19						0.22						0.30					
Survival Rate :	61.90 ***						64.85						52.63					
Age classes used :	8-14						8-14						9-13					
Stan. Error Surv.:	3.33						3.69						11.21					

* Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 17. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 31 - September 2, 1974.

| Length Group (cm) | Age (years) | | |

Table 18. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Barbour Bay/Stony Point area, district of Keewatin, Northwest Territories, August 21 - 24, 1974.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
35.0-39.9	9 (6.8)***	37.5	582	564	400-700	1.0597	2 (3.8)	37.1	556	550	500-600	1.0779	6 (11.8)	38.1	625	597	480-700	1.0774
40.0-44.9	23 (17.3)	42.3	877	898	700-1200	1.1806	8 (15.1)	41.6	822	846	700-1200	1.1663	12 (23.5)	42.6	906	919	700-1025	1.1840
45.0-49.9	24 (18.0)	47.7	1319	1260	975-1500	1.1586	8 (15.1)	47.9	1331	1280	1110-1375	1.1599	11 (21.6)	47.5	1300	1246	975-1500	1.1576
50.0-54.9	22 (16.5)	52.4	1815	1853	1475-2375	1.2959	8 (15.1)	53.2	1905	1982	1575-2375	1.3120	11 (21.6)	51.5	1701	1759	1475-2175	1.2842
55.0-59.9	22 (16.5)	57.5	2489	2530	2000-3300	1.3422	13 (24.5)	57.4	2470	2593	2200-3300	1.3673	4 (7.8)	56.9	2369	2325	2000-2500	1.2607
60.0-64.9	23 (17.3)	62.5	3269	3335	2780-4000	1.3348	12 (22.6)	62.6	3322	3282	2780-4000	1.3388	3 (5.9)	64.6	3611	3550	3250-3900	1.3185
65.0-69.9	6 (4.5)	66.6	4102	3875	3600-4100	1.3384	1 (1.9)	66.2	4022	3600	-	1.2409	3 (5.9)	66.1	3897	3967	3800-4100	1.3709
70.0-74.9	3 (2.3)	70.8	5049	4250	3900-4600	1.2362	1 (1.9)	70.1	4891	4600	-	1.3354	1 (2.0)	70.0	4715	3900	-	1.1370
75.0-79.9	1 (0.8)	77.2	6776	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	133	105	53	52	51	51
Range :	35.2-77.2	400-4600	37.0-70.1	500-4600	36.5-70.0	480-4100
Mean :	52.6	1897	53.8	2200	49.4	1636
Stand. Dev. :	9.09	1046	8.34	1014	8.57	1000
Stand. Error:	0.79	103	1.16	142	1.21	141

* Calculated weights were derived from the following equation, for the combined sample: $\text{Weight (g)} = (0.0026)\ \text{Fork length (cm)}^{3.3990}$

for males : $\text{Weight (g)} = (0.0024)\ \text{Fork length (cm)}^{3.4183}$

for females : $\text{Weight (g)} = (0.0035)\ \text{Fork length (cm)}^{3.3220}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

***Bracketed figures indicate percent of number sampled by category.

Table 19. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Barbour Bay/Stony Point area, district of Keewatin, Northwest Territories, August 21 - 24, 1974.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
5	11 (9.1)**	40.6	35.2-49.3	764	400-1375	1.1123	5 (10.2)	42.4	37.0-49.3	902	500-1375	1.1294	4 (8.3)	38.9	37.6-42.0	681	550-975	1.1397
6	22 (18.2)	42.9	39.0-49.9	889	650-1350	1.1556	8 (16.3)	42.6	40.7-47.5	907	700-1350	1.1411	11 (22.9)	42.1	39.0-45.5	877	650-1050	1.1648
7	28 (23.1)	49.8	42.2-58.8	1560	925-2600	1.2369	9 (18.4)	52.6	46.4-58.0	1871	1130-2600	1.2532	15 (31.2)	48.3	42.2-52.2	1410	925-2000	1.2269
8	25 (20.7)	55.7	47.0-66.7	2328	1275-4100	1.3073	13 (26.5)	56.5	48.3-64.0	2481	1325-3350	1.3423	6 (12.5)	53.2	47.0-66.7	1997	1275-4100	1.2314
9	13 (10.7)	57.9	50.0-64.5	2430	1475-3300	1.2680	5 (10.2)	59.1	56.9-64.0	2680	2200-3300	1.2846	6 (12.5)	55.8	50.0-64.5	2221	1475-3250	1.2342
10	16 (13.2)	61.0	44.0-70.1	3095	900-4600	1.2974	8 (16.3)	63.8	60.9-70.1	3491	2780-4600	1.3389	5 (10.4)	56.8	44.0-65.4	2460	900-3800	1.2309
11	5 (4.1)	62.6	58.2-67.6	3650	3300-4000	1.5233	1 (2.0)	58.2	-	3300	-	1.6740	1 (2.1)	66.3	-	4000	-	1.3725
12	1 (1.0)	72.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Number of fish :	121						49						48					
Range in age :	5-12						5-11						5-11					
Mean age :	7.7						7.7						7.4					
Stand. Dev. :	1.68						1.63						1.54					
Stand. Error :	0.15						0.23						0.22					
Survival Rate :	52.03***						43.48						52.78					
Age classes used :	8-12						9-11						8-11					
Stand. Error Surv.:	4.4						9.96						8.09					

* Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 20. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Barbour Bay/Stony Point area, district of Keewatin, Northwest Territories, August 21 - 24, 1974.

Length Group (cm)	Age (years)																																	
	5			6			7			8			9			10			11			12	Total											
	M	U	F	M	U	F	M	U	F	M	U	F	M	U	F	M	U	F	M	U	F	U	M	U	F	Combined		Av. Age						
35.0-39.9	2	1	3			2																	2	1	5	8 (6.6)*		5.3						
40.0-44.9	1	1	1	6	1	8		1	2									1					7	3	12	22 (18.2)		6.2						
45.0-49.9	2			2	2	1	2	2	7	2		3											8	4	11	23 (19.0)		6.8						
50.0-54.9							4		6	4	3	1			3			1					8	3	11	22 (18.2)		7.7						
55.0-59.9							3	1		4	2	1	3		2			1	1	1			11	4	4	19 (15.7)		8.5						
60.0-64.9										3	1		2	2	1	7	3	1		1			12	7	2	21 (17.4)		9.5						
65.0-69.9												1						1		1	1			1	3	4 (3.3)		10.0						
70.0-74.9																1						1	1	1		2 (1.7)		11.0						
75.0-79.9																																		
Total by sex	5	2	4	8	3	11	9	4	15	13	6	6	5	2	6	8	3	5	1	3	1	1	49 (40.5)		24 (19.8)	48 (39.7)								
Total combined	11 (9.1)*			22 (18.2)			28 (23.1)			25 (20.7)			13 (10.7)			16 (13.2)			5 (4.1)			1 (0.8)				121								
Av. fork length	40.6			42.9			49.8			55.7			57.9			61.0			62.6			72.4												

* Bracketed figures in columns/rows indicate percent of total fish aged.

Table 21. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 20 - 21, 1975.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
30.0-34.9	5 (2.5) ***	32.2	415	390	350-450	1.1666	2 (1.7)	32.9	450	438	425-450	1.2343	2 (2.5)	31.4	-	363	350-375	1.1771
35.0-39.9	10 (5.0)	37.1	638	635	500-800	1.2415	4 (3.4)	37.1	646	638	550-750	1.2474	6 (7.4)	37.1	643	633	500-800	1.2376
40.0-44.9	24 (12.0)	42.7	977	984	750-1350	1.2589	15 (12.7)	42.7	987	983	750-1350	1.2551	9 (11.1)	42.8	990	986	825-1150	1.2654
45.0-49.9	30 (15.0)	47.0	1307	1300	950-1600	1.2496	19 (16.1)	46.8	1302	1270	950-1550	1.2383	11 (13.6)	47.4	1348	1352	1100-1600	1.2690
50.0-54.9	24 (12.0)	52.5	1828	1878	1500-2200	1.2998	11 (9.3)	52.8	1872	1934	1750-2200	1.3183	13 (16.0)	52.2	1804	1831	1500-2050	1.2842
55.0-59.9	45 (22.5)	57.4	2396	2477	2050-3100	1.3097	31 (26.3)	57.3	2396	2469	2050-3100	1.3091	14 (17.3)	57.5	2417	2493	2150-3000	1.3111
60.0-64.9	41 (20.5)	61.7	2982	3028	2500-4150	1.2856	20 (16.9)	61.8	3009	3084	2500-4150	1.3035	21 (25.9)	61.6	2976	2975	2600-3500	1.2686
65.0-69.9	9 (4.5)	66.9	3812	3769	3400-4270	1.2568	5 (4.2)	66.7	3788	3794	3400-4270	1.2783	4 (4.9)	67.3	3889	3738	3650-3850	1.2300
70.0-74.9	2 (1.0)	70.9	4546	4525	4200-4850	1.2674	2 (1.7)	70.9	4553	4525	4200-4850	1.2674	-	-	-	-	-	-
75.0-79.9	6 (3.0)	77.2	5885	5408	4850-5850	1.1754	5 (4.2)	77.3	5908	5520	5150-5850	1.1938	1 (1.2)	76.5	5728	4850	-	1.0833
80.0-84.9	3 (1.5)	83.6	7492	7183	6750-7500	1.2287	3 (2.5)	83.6	7483	7183	6750-7500	1.2287	-	-	-	-	-	-
85.0-89.9	1 (0.5)	88.6	8935	7550	-	1.0855	1 (0.8)	88.6	8915	7550	-	1.0855	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	200	200	118	118	81	81
Range :	30.7-88.6	350-7550	32.8-88.6	425-7550	30.7-76.5	350-4850
Mean :	54.4	2281	55.4	2428	53.3	2090
Stand. Dev. :	10.56	1312	11.09	1480	9.44	979
Stand. Error:	0.75	93	1.03	137	1.06	109

* Calculated weights were derived from the following equation, for the combined sample: $\text{Weight (g)} = (0.0111)\ \text{Fork length (cm)}^{3.0326}$

for males : $\text{Weight (g)} = (0.0120)\ \text{Fork length (cm)}^{3.0147}$

for females : $\text{Weight (g)} = (0.0116)\ \text{Fork length (cm)}^{3.0226}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 22. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 20 - 21, 1975.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
4	9 (4.8)**	37.9	32.1-43.3	669	350-950	1.1886	5 (4.5)	38.8	32.9-43.3	710	425-950	1.1907	4 (5.2)	36.8	32.1-40.3	619	350-825	1.1860
5	19 (10.1)	41.4	30.7-47.0	918	375-1350	1.2592	13 (11.6)	42.3	32.8-47.0	963	450-1350	1.2417	6 (7.8)	39.4	30.7-46.8	821	375-1150	1.2971
6	34 (18.0)	46.6	35.1-55.6	1306	550-2200	1.2583	18 (16.1)	46.7	36.4-55.6	1304	625-2200	1.2510	16 (20.8)	46.4	35.1-53.9	1308	550-2000	1.2665
7	33 (17.5)	53.7	42.5-61.8	2082	850-3300	1.3023	20 (17.9)	54.6	42.5-61.8	2208	1000-3300	1.3137	13 (16.9)	52.3	42.6-59.4	1888	850-2650	1.2847
8	50 (26.5)	57.8	44.6-65.8	2540	900-4150	1.2900	32 (28.6)	58.1	46.6-65.8	2597	1250-4150	1.3077	18 (23.4)	57.4	44.6-63.8	2439	900-3400	1.2585
9	17 (9.0)	61.0	50.5-71.8	3025	1700-4850	1.3030	10 (8.9)	63.4	55.2-71.8	3347	2100-4850	1.2903	7 (9.1)	57.7	50.5-62.9	2564	1700-3150	1.3212
10	10 (5.3)	62.9	55.5-68.6	3200	2150-4000	1.2758	4 (3.6)	62.9	55.5-68.6	3125	2150-4000	1.2358	6 (7.8)	62.9	61.0-66.8	3250	2950-3650	1.3024
11	7 (3.7)	69.4	61.5-78.0	4104	2750-5750	1.1985	3 (2.7)	77.7	77.0-78.0	5383	5150-5750	1.1490	4 (5.2)	63.2	61.5-66.0	3144	2750-3850	1.2357
12	5 (2.6)	71.9	61.0-88.6	4670	2950-7550	1.2101	3 (2.7)	78.3	70.0-88.6	5783	4200-7550	1.1902	2 (2.6)	62.4	61.0-63.7	3000	2950-3050	1.2398
13	2 (1.1)	73.1	68.8-77.4	4750	3650-5850	1.1912	1 (1.0)	77.4	-	5850	-	1.2616	1 (1.3)	68.8	-	3650	-	1.1208
14	2 (1.1)	83.4	82.8-84.0	7125	6750-7500	1.2272	2 (1.8)	83.4	82.8-84.0	7125	6750-7500	1.2272	-	-	-	-	-	-
16	1 (0.5)	84.0	-	7300	-	1.2316	1 (1.0)	84.0	-	7300	-	1.2316	-	-	-	-	-	-
Number of fish	:	189						112						77				
Range in age	:	4-16						4-16						4-13				
Mean age	:	7.5						7.5						7.5				
Stand. Dev.	:	2.10						2.18						2.00				
Stand. Error	:	0.15						0.21						0.23				
Survival Rate	:	59.43***						62.90						55.8				
Age classes used	:	9-16						9-16						9-13				
Stand. Error Surv.	:	4.71						6.01						7.38				

* Condition factors were calculated from the formula: Condition factor = $\frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 23. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.1 to 14.0 cm mesh) during the commercial fishery in the Fergusson River area, District of Keewatin, Northwest Territories, August 20 - 21, 1975.

Length Group (cm)	Age (years)																									
	4		5		6		7		8		9		10		11		12		13		14		16		Total			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Combined	Av. Age
30.0-34.9	1	1	1	1																			2	2	4 (2.1)*	4.5
35.0-39.9	2	2	1	2	1	2																	4	6	10 (5.3)	4.9
40.0-44.9	2	1	7	2	3	3	3	1		1													15	8	23 (12.2)	5.6
45.0-49.9			4	1	11	7	1	2	1	1													17	11	28 (14.8)	6.1
50.0-54.9					2	4	4	6	4	1		2											10	13	23 (12.2)	7.1
55.0-59.9					1		8	4	16	8	2	1	1										28	13	41 (21.7)	7.8
60.0-64.9							4		10	7	5	4	1	5		3		2					20	21	41 (21.7)	8.8
65.0-69.9									1		2		2	1		1				1			5	3	8 (4.2)	10.0
70.0-74.9											1						1						2		2 (1.0)	10.5
75.0-79.9															3		1		1				5		5 (2.7)	11.6
80.0-84.9																					2		1		3	3 (1.6)	14.6
85.0-89.9																	1								1 (0.5)	12.0
Total by sex	5	4	13	6	18	16	20	13	32	18	10	7	4	6	3	4	3	2	1	1	2	9	1		112 (59.3)	77 (40.7)		
Total combined	9 (4.8)*		19 (10.1)		34 (18.0)		33 (17.5)		50 (26.5)		17 (9.0)		10 (5.3)		7 (3.7)		5 (2.6)		2 (1.1)		2 (1.1)		1 (0.5)			189		
Av. fork length	37.9		41.4		46.6		53.7		57.8		61.0		62.9		69.4		71.9		73.1		83.4		84.0					

* Bracketed figures in columns/rows indicate percent of total fish aged.

Table 24. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 27 - 29, 1975.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
25.0-29.9	1 (0.5)***	29.1	338	325	-	1.3189	-	-	-	-	-	-	-	-	-	-	-	-
30.0-34.9	3 (1.5)	33.0	488	508	450-600	1.4085	1 (0.8)	34.3	569	600	-	1.4869	1 (1.4)	31.9	444	475	-	1.4633
35.0-39.9	4 (2.0)	36.6	660	606	600-625	1.2425	1 (0.8)	35.6	634	625	-	1.3853	2 (2.7)	37.1	684	600	-	1.1854
40.0-44.9	3 (1.5)	43.7	1106	1117	1050-1250	1.3396	2 (1.6)	43.8	1154	1150	1050-1250	1.3715	1 (1.4)	43.5	1079	1050	-	1.2756
45.0-49.9	2 (1.0)	46.6	1335	1163	1150-1175	1.1509	1 (0.8)	45.9	1321	1175	-	1.2151	1 (1.4)	47.3	1372	1150	-	1.0867
50.0-54.9	3 (1.5)	53.7	2019	2150	2100-2250	1.3915	2 (1.6)	53.5	2057	2100	-	1.3728	1 (1.4)	54.0	2005	2250	-	1.4289
55.0-59.9	43 (21.5)	58.1	2553	2555	2150-2950	1.2989	27 (22.0)	58.1	2612	2576	2250-2900	1.3135	16 (21.9)	58.3	2496	2520	2150-2950	1.2741
60.0-64.9	85 (42.5)	62.2	3114	3180	2550-3850	1.3150	58 (47.2)	62.3	3196	3218	2550-3850	1.3316	26 (35.6)	62.3	3019	3107	2550-3750	1.2801
65.0-69.9	40 (20.0)	67.0	3850	3878	3200-4850	1.2882	23 (18.7)	67.1	3961	4009	3200-4850	1.3251	17 (23.3)	66.9	3702	3700	3225-4450	1.2382
70.0-74.9	15 (7.5)	71.8	4711	4490	3500-5350	1.2143	8 (6.5)	70.9	4644	4513	3500-5350	1.2651	7 (9.6)	72.8	4716	4464	3900-4800	1.1563
75.0-79.9	1 (0.5)	78.7	6157	5300	-	1.0873		-	-	-	-	-	1 (1.4)	78.7	5895	5300	-	1.0873

Parameter	Combined Sample: Fork Length	Combined Sample: Weight	Males: Fork Length	Males: Weight	Females: Fork Length	Females: Weight
No. of fish :	200	200	123	123	73	73
Range :	29.1-78.7	325-5350	34.3-73.4	600-5350	31.9-78.7	475-5300
Mean :	61.4	3122	61.8	3198	62.0	3105
Stand. Dev. :	7.63	918	6.02	818	8.02	941
Stand. Error:	0.54	65	0.55	74	0.95	111

* Calculated weight were derived from the following equation, for the combined sample: $\text{Weight (g)} = (0.0181)\ \text{Fork length (cm)}^{2.9176}$

for males : $\text{Weight (g)} = (0.0207)\ \text{Fork length (cm)}^{2.8914}$

for females : $\text{Weight (g)} = (0.0219)\ \text{Fork length (cm)}^{2.8640}$

and represent the calculated weight for the average fork length perlength group

** Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 25. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in - 14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 27 - 29, 1975.

Age (No. of annuli)	Combined Samples						Males						Females					
	Number of fish	Fork Length (cm)		Weight (g)		Cond.* Factor	Number of fish	Fork Length (cm)		Weight (g)		Cond. Factor	Number of fish	Fork Length (cm)		Weight (g)		Cond. Factor
		Mean	Range	Mean	Range			Mean	Range	Mean	Range			Mean	Range	Mean	Range	
4	2 (1.1)**	39.8	36.0-43.5	825	600-1050	1.2808	1 (1.0)	43.5	-	1050	-	1.2756	1 (1.5)	36.0		600	-	1.2860
5	7 (3.7)	41.2	32.8-47.3	896	450-1250	1.2312	2 (1.7)	45.0	44.0-45.9	1213	1175-1250	1.3412	3 (4.4)	43.0	38.1-47.3	933	600-1150	1.1401
6	5 (2.6)	49.0	29.1-63.8	1905	325-3325	1.3200	4 (3.4)	54.0	35.6-63.8	2300	625-3325	1.3202	-	-	-	-	-	-
7	38 (2.0)	59.6	54.0-65.8	2845	2250-4000	1.3331	30 (25.4)	60.0	55.3-65.8	2908	2250-4000	1.3366	7 (10.3)	57.8	54.0-60.3	2564	2250-2900	1.3288
8	58 (30.5)	61.9	52.8-69.0	3150	2100-4700	1.3190	45 (38.1)	62.1	52.8-69.0	3198	2100-4700	1.3237	13 (19.1)	61.0	56.0-65.8	2981	2150-4250	1.3026
9	34 (17.9)	63.3	58.3-72.4	3399	2250-5350	1.3195	21 (17.8)	64.7	58.4-72.4	3681	2500-5350	1.3421	13 (19.1)	61.0	58.3-66.6	2942	2250-3900	1.2831
10	22 (11.6)	66.2	60.3-74.5	3585	2750-4400	1.2342	8 (6.8)	66.7	61.4-70.2	3713	3000-4400	1.2486	14 (20.6)	65.9	60.3-74.5	3513	2750-4250	1.2259
11	6 (3.2)	65.2	59.4-70.7	3796	2375-5100	1.3406	4 (3.4)	66.7	60.1-70.7	4213	3100-5100	1.4088	2 (2.9)	62.4	59.4-65.3	2963	2375-3550	1.2041
12	7 (3.7)	66.1	60.9-73.4	3554	2750-5200	1.2263	2 (1.7)	71.7	70.0-73.4	4350	3500-5200	1.1677	5 (7.4)	63.9	60.9-66.7	3235	2750-3675	1.2357
13	5 (2.6)	70.7	65.7-73.5	4090	3200-4800	1.1513	1 (1.0)	69.1	-	3200	-	0.9699	4 (5.9)	71.1	65.7-73.5	4313	3500-4800	1.1967
14	4 (2.1)	68.7	59.7-73.2	4125	2650-4800	1.2510	-	-	-	-	-	-	4 (5.9)	68.7	59.7-73.2	4125	2650-4800	1.2510
15	2 (1.1)	73.4	68.0-78.7	4263	3225-5300	1.0565	-	-	-	-	-	-	2 (2.9)	73.4	68.0-78.7	4263	3225-5300	1.0565
Number of fish	:	190						118						68				
Range in age	:	4-15						4-13						4-15				
Mean age	:	8.6						8.1						9.5				
Stand. Dev.	:	1.98						1.38						2.43				
Stand. Error	:	0.14						0.13						0.29				
Survival Rate	:	57.53***						42.62						67.35				
Age classes used	:	9-15						9-13						11-15				
Stand. Error Surv.	:	3.60						6.24						6.50				

* Condition factors were calculated from the formula: Condition factor = $\frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 26. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in./14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 27 - 29, 1975.

| Length Group (cm) | Age (years) | | |

Table 27. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in - 14.0 cm mesh) during the spring commercial fishery at the mouth of Diana River, district of Keewatin, Northwest Territories, June 21-[illegible], 1971

Length Group (cm)	Combined Sample: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.*	Average	Range	Cond.** Factor	Males: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.	Average	Range	Cond. Factor	Females: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.	Average	Range	Cond. Factor
45.0-49.9	1 (0.8)***	46.2	1085	1000	-	1.0141	1 (1.0)	46.2	1133	1000	-	1.0141	-	-	-	-	-	-
50.0-54.9	2 (1.6)	53.4	1634	1525	1400-1650	1.0019	1 (1.0)	52.5	1607	1500	-	0.9675	1 (4.0)	54.2	1643	1650	-	1.0093
55.0-59.9	3 (2.4)	56.2	1887	1617	1500-1700	0.9098	1 (1.0)	56.5	1965	1650	-	0.9148	2 (8.0)	56.1	1811	1600	1500-1700	0.9073
60.0-64.9	18 (14.6)	63.1	2618	2661	2100-3200	1.0590	10 (10.4)	63.1	2658	2710	2250-2950	1.0766	8 (32.0)	63.1	2528	2600	2100-3200	1.0371
65.0-69.9	41 (33.3)	67.4	3153	3237	2350-3900	1.0578	30 (31.3)	67.7	3222	3307	2750-3900	1.0646	9 (36.0)	66.2	2897	3011	2350-3550	1.0378
70.0-74.9	31 (25.2)	72.6	3890	3984	3000-4950	1.0405	27 (28.1)	72.6	3901	4076	3300-4950	1.0627	4 (16.0)	72.4	3734	3363	3000-3600	0.8908
75.0-79.9	25 (20.3)	77.1	4610	4448	3600-5850	0.9674	24 (25.0)	77.2	4615	4421	3600-5850	0.9615	1 (4.0)	77.2	4479	5100	-	1.1085
80.0-84.9	2 (1.6)	81.7	5430	5225	4350-6100	0.9554	2 (2.1)	81.7	5389	5225	4350-6100	0.9554	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	123	123	96	96	25	25
Range :	46.2-82.2	1000-6100	46.2-82.2	1000-6100	54.2-77.2	1500-5100
Mean :	69.6	3534	70.8	3718	65.3	2852
Stand. Dev. :	6.29	894	6.07	852	5.50	749
Stand. Error:	0.57	81	0.62	87	1.12	153

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0216) Fork length (cm)$^{2.8241}$

for males : Weight (g) = (0.0316) Fork length (cm)$^{2.7360}$

for females : Weight (g) = (0.0199) Fork length (cm)$^{2.8355}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 28. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in (14.0 cm mesh) during the spring commercial fishery at the mouth of Diana River, district of Keewatin, Northwest Territories, June 21 - 22, 1975.

Age (No. of annuli)	Combined Samples						Males						Females					
	Number of fish	Fork Length (cm)		Weight (g)		Cond.* Factor	Number of fish	Fork Length (cm)		Weight (g)		Cond. Factor	Number of fish	Fork Length (cm)		Weight (g)		Cond. Factor
		Mean	Range	Mean	Range			Mean	Range	Mean	Range			Mean	Range	Mean	Range	
6	1 (1.0)**	52.5	-	1400	-	0.9675	1 (1.3)	52.5	-	1400	-	0.9675	-	-	-	-	-	-
7	3 (3.0)	58.8	54.2-65.6	2033	1650-2800	0.9810	2 (2.6)	61.1	56.5-65.6	2225	1650-2800	0.9533	1 (5.0)	54.2	-	1650	-	1.0363
8	11 (11.1)	62.8	46.2-70.8	2709	1000-3700	1.0506	9 (11.7)	63.9	46.2-70.8	2878	1000-3700	1.0693	2 (10.0)	58.3	55.1-61.4	1950	1500-2400	0.9668
9	23 (23.2)	67.5	57.0-77.2	3326	1700-5100	1.0667	18 (23.4)	67.7	60.5-73.0	3375	2250-4950	1.0790	3 (15.0)	65.9	57.0-77.2	3117	1700-5100	1.0074
10	21 (21.2)	69.4	60.2-79.8	3645	2600-5850	1.0724	17 (22.1)	70.7	63.6-79.8	3800	2700-5850	1.0581	4 (20.0)	64.1	60.2-66.4	2988	2600-3550	1.1332
11	21 (21.2)	71.4	63.5-78.3	3683	2350-4750	1.0062	16 (20.8)	73.1	66.0-78.3	3972	3300-4750	1.0232	5 (25.0)	66.1	63.5-70.8	2760	2350-3600	0.9519
12	9 (9.1)	73.7	64.1-82.2	4061	3000-6100	1.0048	6 (7.8)	76.8	71.3-82.2	4558	3800-6100	0.9983	3 (15.0)	67.6	64.1-73.8	3067	3000-3200	1.0179
13	7 (7.1)	73.7	67.5-78.1	3721	2900-4650	0.9272	5 (6.5)	74.8	69.0-78.1	3930	3500-4650	0.9402	2 (10.0)	71.0	67.5-74.5	3200	2900-3500	0.8947
14	2 (2.0)	78.1	77.4-78.8	4500	4300-4700	0.9440	2 (2.6)	78.1	77.4-78.8	4500	4300-4700	0.9440	-	-	-	-	-	-
15	1 (1.0)	77.5	-	4550	-	0.9775	1 (1.3)	77.5	-	4550	-	0.9775	-	-	-	-	-	-
Number of fish	:	99						77						20				
Range in age	:	6-15						6-15						7-13				
Mean age	:	10.2						10.1						10.4				
Stand. Dev.	:	1.70						1.73						1.66				
Stand. Error	:	0.17						0.20						0.37				
Survival Rate	:	54.89***						54.90						33.33				
Age classes used	:	10-15						10-15						12-13				
Stand. Error Surv.	:	4.28						4.87						17.21				

* Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 29. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the spring commercial fishery at the mouth of Diana River, distirct of Keewatin, Northwest Territories, June 21-22, 1975.

Length Group (cm)	Age (years)																							
	6		7		8		9			10		11		12		13		14		15		Total				
	M	F	M	F	M	F	M	U	F	M	F	M	F	M	F	M	F	M	F	M	F	M	U	F	Combined	Av. Age
45.0-49.9					1																	1			1 (1.0)*	8.0
50.0-54.9	1			1																		1		1	2 (2.0)	6.5
55.0-59.9			1			1			1													1		2	3 (3.0)	8.0
60.0-64.9					4	1	3		1	2	2		2		1							9		7	16 (16.2)	9.4
65.0-69.9			1		3		11	2		6	2	3	2		1	1	1					25	2	6	33 (33.3)	9.8
70.0-74.9					1		4			6		7	1	2	1	1	1					21		3	24 (24.2)	10.6
75.0-79.9									1	3		6		3		3		2		1		18		1	19 (19.2)	11.7
80.0-84.9														1								1			1 (1.0)	12.0
Total by sex	1		2	1	9	2	18	2	3	17	4	16	5	6	3	5	2	2		1		77 (77.8)	2 (2.0)	20 (20.2)		
Total combined	1 (1.0)*		3 (3.0)		11 (11.1)		23 (23.2)			21 (21.2)		21 (21.2)		9 (9.1)		7 (7.1)		2 (2.0)		1 (1.0)					99	
Av. fork length	52.5		58.8		62.8		67.5			69.4		71.4		73.7		73.7		78.1		77.5						

* Bracketed figures in columns/rows indicate percent of total fish aged.

Table 30. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Barbour Bay/Stony Point area, district of Keewatin, Northwest Territories, August 15 - 17, 1975.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
25.0-29.9	1 (0.5)***	28.8	253	250	-	1.0466	-	-	-	-	-	-	1 (3.6)	28.8	241	250	-	1.0466
35.0-39.9	6 (3.0)	38.0	608	600	-	1.1483	2 (3.8)	37.4	589	600	-	1.1444	1 (3.6)	37.3	556	600	-	1.1562
40.0-44.9	20 (10.0)	42.5	867	836	550-1000	1.0590	2 (3.8)	42.4	868	788	650-925	1.0219	7 (25.0)	42.9	875	850	550-1000	1.0696
45.0-49.9	20 (10.0)	47.3	1216	1244	1100-1350	1.2024	5 (9.6)	47.2	1208	1260	1100-1350	1.1976	3 (10.7)	46.5	1136	1217	1150-1250	1.2104
50.0-54.9	42 (21.0)	52.7	1712	1672	1400-2000	1.1501	9 (17.3)	53.2	1748	1722	1500-2000	1.1455	7 (25.0)	51.8	1611	1607	1400-1800	1.1560
55.0-59.9	64 (32.0)	57.4	2243	2211	1900-2600	1.1950	24 (46.2)	57.3	2198	2243	1950-2600	1.1972	6 (21.4)	56.1	2086	2088	1900-2300	1.1869
60.0-64.9	30 (15.0)	62.0	2863	2823	2350-3200	1.1726	8 (15.4)	62.4	2861	2806	2350-3150	1.1526	3 (10.7)	61.6	2824	2867	2650-3200	1.2259
65.0-69.9	14 (7.0)	67.0	3659	3400	3150-3650	1.1993	2 (3.8)	65.7	3354	3400	3150-3650	1.1993	-	-	-	-	-	-
70.0-74.5	3 (1.5)	72.5	4697	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	200	79	52	51	28	28
Range :	28.8-73.4	250-3650	36.8-65.8	600-3650	28.8-63.0	250-3200
Mean :	54.8	1876	55.4	2067	49.6	1529
Stand. Dev. :	7.81	731	6.50	672	7.89	717
Stand. Error:	0.55	83	0.91	95	1.52	138

* Calculated weight were derived from the following equation, for the combined sample: Weight (g) = (0.0061) Fork length (cm)$^{3.1642}$

for males : Weight (g) = (0.0082) Fork length (cm)$^{3.0875}$

for females : Weight (g) = (0.0045) Fork length (cm)$^{3.2397}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 31. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in (14.0 cm mesh) during the commercial fishery in the Barbour Bay/Stony Point area, district of Keewatin, Northwest Territories, August 15 - 17, 1975.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
4	2 (1.1)**	33.1	28.8-37.3	425	250-600	1.1014	-	-	-	-	-	-	2 (7.7)	33.1	28.8-37.3	425	250-600	1.1014
5	2 (1.1)	37.5	36.8-38.1	600	-	1.1444	2 (4.2)	37.5	36.8-38.1	600	-	1.1444	-	-	-	-	-	-
6	13 (6.9)	42.5	38.2-51.0	840	550-1400	1.0129	1 (2.1)	40.1	-	650	-	1.0080	4 (15.4)	43.8	40.0-51.0	888	550-1400	1.0141
7	34 (18.1)	47.9	40.2-56.8	1404	850-2225	1.5560	8 (16.7)	50.9	44.7-56.8	1563	925-2225	1.1536	6 (23.1)	46.6	43.0-51.5	1192	850-1550	1.1583
8	40 (21.3)	54.7	42.5-61.5	1989	1250-2600	1.1826	16 (33.3)	55.7	45.2-61.3	2081	1250-2600	1.1903	4 (15.4)	51.9	46.9-55.8	1619	1250-1925	1.1517
9	37 (19.7)	56.3	44.2-67.7	2104	1000-3150	1.1986	9 (18.8)	57.4	51.8-63.8	2289	1550-3150	1.1923	4 (15.4)	51.3	44.2-56.3	1688	1000-2300	1.2127
10	26 (13.8)	59.2	49.0-65.8	2345	1350-3650	1.1528	9 (18.8)	59.3	49.0-65.8	2450	1350-3650	1.1448	3 (11.5)	56.2	55.1-57.9	2067	1900-2200	1.1741
11	22 (11.7)	63.2	55.5-73.4	2800	2550-3100	1.2513	2 (4.2)	60.8	58.0-63.6	2825	2550-3100	1.2560	1 (3.8)	60.5	-	2750	-	1.2418
12	6 (3.2)	65.1	60.7-69.4	3000	-	1.1180	1 (2.1)	64.5	-	3000	-	1.1180	-	-	-	-	-	-
13	1 (0.5)	58.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
14	3 (1.6)	62.2	54.5 -69.0	3200	-	1.2798	-	-	-	-	-	-	1 (3.8)	63.0	-	3200	-	1.2798
15	2 (1.1)	66.1	61.2-71.0	2650	-	1.1561	-	-	-	-	-	-	1 (3.8)	61.2	-	2650	-	1.1561
Number of fish :	188						48						26					
Range in age :	4-15						5-12						4-15					
Mean age :	8.8						8.4						8.2					
Stand. Dev. :	1.93						1.46						2.56					
Stand. Error :	0.14						0.21						0.50					
Survival Rate :	55.35***						44.44						62.86					
Age classes used :	9-15						9-12						8-15					
Stand. Error Surv.:	3.37						8.08						8.29					

* Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 32. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Barbour Bay/ Stony Point area, district of Keewatin, Northwest Territories, August 15 - 17, 1975.

| Length Group (cm) | Age (years) | | |

Table 33. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in - 14.0 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 28 - 31, 1976.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
35.0-39.9	4 (2.0)***	38.1	799	750	650-900	1.3568	1 (0.9)	38.6	820	750	-	1.3041	3 (3.5)	38.0	811	750	650-900	1.3744
40.0-44.9	4 (2.0)	42.5	1091	1075	900-1300	1.3952	1 (0.9)	44.0	1201	1150	-	1.3500	3 (3.5)	41.9	1062	1050	900-1300	1.4102
45.0-49.9	4 (2.0)	47.4	1490	1513	1350-1750	1.4185	1 (0.9)	46.0	1366	1350	-	1.3869	3 (3.5)	47.8	1528	1567	1350-1750	1.4290
50.0-54.9	10 (5.0)	52.9	2037	2020	1750-2300	1.3659	6 (5.1)	52.5	2008	1958	1800-2050	1.3545	4 (4.7)	53.4	2076	2113	1750-2300	1.3830
55.0-59.9	36 (17.8)	57.4	2571	2551	2100-3050	1.3484	25 (21.4)	57.2	2577	2508	2100-3000	1.3383	11 (12.9)	57.8	2584	2650	2250-3050	1.3714
60.0-64.9	52 (25.7)	62.5	3278	3361	2250-4300	1.3734	29 (24.8)	62.7	3367	3476	2700-4300	1.4096	23 (27.1)	62.3	3179	3215	2250-4000	1.3278
65.0-69.9	47 (23.3)	66.9	3980	4087	3100-5050	1.3688	30 (25.6)	66.9	4066	4192	3450-5050	1.3972	17 (20.0)	66.7	3839	3903	3100-4550	1.3187
70.0-74.9	20 (9.9)	72.0	4907	4800	4050-6100	1.2834	5 (4.3)	72.8	5201	5280	4800-6100	1.3631	15 (17.6)	71.7	4687	4640	4050-5600	1.2568
75.0-79.9	15 (7.4)	76.5	5833	5913	4650-7100	1.3197	10 (8.5)	76.3	5963	6010	4950-6900	1.3532	5 (5.9)	76.9	5688	5720	4650-7100	1.2526
80.0-84.9	6 (3.0)	83.3	7436	6633	5300-7500	1.1494	5 (4.3)	83.2	7672	6900	6150-7500	1.1973	1 (1.2)	83.5	7142	5300	-	0.9104
85.0-89.9	4 (2.0)	85.8	8118	8088	6950-8750	1.2758	4 (3.4)	85.9	8420	8088	6950-8750	1.2758	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	202	202	117	117	85	85
Range :	35.0-87.8	650-8750	38.6-87.8	750-8750	35.0-83.5	650-7100
Mean :	64.0	3708	64.8	3911	62.8	3429
Stand. Dev. :	9.23	1469	9.00	1583	9.45	1242
Stand. Error:	0.65	104	0.84	147	1.03	138

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0248) Fork length (cm)$^{2.8516}$

for males : Weight (g) = (0.0197) Fork length (cm)$^{2.9115}$

for females : Weight (g) = (0.0349) Fork length (cm)$^{2.7637}$

and represent thecalculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 34. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in (14.0 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 28 - 31, 1976.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
6	6 (3.5)**	41.9	35.0-53.7	1042	650-2050	1.3433	3 (3.0)	45.4	38.6-53.7	1317	750-2050	1.3260	3 (4.2)	38.3	35.0-40.5	767	650-950	1.3606
7	10 (5.8)	51.9	39.4-57.1	1955	900-2700	1.3707	7 (6.9)	53.7	46.0-57.1	2093	1350-2700	1.3402	3 (4.2)	47.7	39.4-54.0	1633	900-2250	1.4420
8	19 (11.0)	55.7	40.5-67.7	2445	900-4350	1.3692	10 (9.9)	58.5	52.7-67.7	2785	2050-4350	1.3644	9 (12.5)	52.5	40.5-61.5	2067	900-3150	1.3746
9	29 (16.8)	63.3	52.0-75.0	3610	2000-5550	1.4037	23 (22.8)	64.2	52.0-75.0	3789	2000-5550	1.4173	6 (8.3)	60.0	53.6-65.6	2925	2300-3550	1.3514
10	38 (22.0)	63.1	55.5-75.0	3572	2100-6400	1.3965	26 (25.7)	63.6	55.5-75.0	3681	2100-6400	1.4058	12 (16.7)	62.2	57.3-67.0	3338	2500-4550	1.3765
11	21 (12.1)	65.4	56.3-76.1	3888	2350-6900	1.3567	17 (16.8)	64.9	56.3-76.1	3782	2350-6900	1.3492	4 (5.6)	67.6	63.5-75.3	4338	3550-5750	1.3884
12	23 (13.3)	67.5	57.6-83.5	3930	2250-6600	1.2633	5 (5.0)	69.6	62.7-75.5	4850	3600-6600	1.4286	18 (25.0)	66.9	57.6-83.5	3675	2250-5300	1.2173
13	8 (4.6)	69.3	63.5-75.5	4138	3200-4850	1.2473	1 (1.0)	72.8	-	4850	-	1.2570	7 (9.7)	68.7	63.5-75.5	4036	3200-4700	1.2459
14	11 (6.4)	69.9	56.3-82.9	4586	2450-7500	1.2956	4 (4.0)	72.2	56.3-82.9	5163	2450-7500	1.2847	7 (9.7)	68.6	62.5-72.8	4257	3000-5600	1.3018
15	2 (1.2)	77.7	72.2-83.2	5450	4550-6350	1.1557	1 (1.0)	83.2	-	6350	-	1.1026	1 (1.4)	72.2	-	4550	-	1.2089
16	2 (1.2)	77.6	71.2-84.0	6100	4800-7400	1.2892	1 (1.0)	84.0	-	7400	-	1.2485	1 (1.4)	71.2	-	4800	-	1.3298
17	3 (1.7)	78.8	73.5-83.8	6283	5600-7100	1.2985	2 (2.0)	78.7	73.5-83.8	5875	5600-6150	1.2277	1 (1.4)	79.0	-	7100	-	1.4400
19	1 (0.6)	85.2	-	8750	-	1.4148	1 (1.0)	85.2	-	8750	-	1.4148	-	-	-	-	-	-
Number of fish	173						101						72					
Range in age	6-19						6-19						6-17					
Mean age	10.4						10.0						10.9					
Stand. Dev.	2.38						2.29						2.45					
Stand. Error	0.18						0.23						0.29					
Survival Rate	62.16***						60.26						50.00					
Age classes used	11-19						11-19						13-17					
Stand. Error Surv.	3.56						5.45						8.57					

* Condition factors were calculated from the formula: Condition factor = $\frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 35. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in (14.0 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 28 - 31, 1976.

Length Group (cm)	Age (years)																											
	6		7		8		9		10		11		12		13		14		15		16		17		19		Total			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Combined	Av. Age
35.0-39.9	1	2		1																					1	3	4 (2.3)*	6.3
40.0-44.9	1	1				2																			1	3	4 (2.3)	7.0
45.0-49.9			1	1		1																			1	2	3 (1.7)	7.0
50.0-54.9	1		2	1	1	2	1	1																	5	4	9 (5.2)	7.7
55.0-59.9			4		6	3	3	2	5	3	3			2			1								21	11	32 (18.5)	9.3
60.0-64.9					2	1	7	2	11	5	6	1	1	4		3		2							27	18	45 (26.0)	10.4
65.0-69.9					1		11	1	9	4	5	2	2	7			1	1							29	15	44 (25.4)	10.4
70.0-74.9											2			4	1	3		4		1		1	1		4	13	17 (9.8)	13.3
75.0-79.9							1		1		1	1	2			1			1		1			1	5	3	8 (4.6)	11.9
80.0-84.9														1			2		1		1		1		6		6 (3.5)	14.7
85.0-89.9																								1	1		1 (0.6)	19.0
Total by sex	3	3	7	3	10	9	23	6	26	12	17	4	5	18	1	7	4	7	1	1	1	1	2	1	1	101 (58.4)	72 (41.6)	
Total combined	6 (3.5)*		10 (5.8)		19 (11.0)		29 (16.8)		38 (22.0)		21 (12.1)		23 (13.3)		8 (4.6)		11 (6.4)		2 (1.2)		2 (1.2)		3 (1.7)		1 (0.6)		173	
Av. fork length	41.9		51.9		55.7		63.3		63.1		65.4		67.5		69.3		70.0		77.7		77.6		78.8		85.2			

* Bracketed figures in columns/rows indicate percent of total fish aged.

Table 36. Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5 in /14 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 19, 1976.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	DRESSED WEIGHT(G) SD
45	9	5	48.2	1189	141
50	20	10	52.8	1583	193
55	57	29	57.7	2099	186
60	70	35	62.3	2624	263
65	34	17	67.0	3281	237
70	7	4	71.1	4121	430
75	3	2	76.0	4267	257
TOTAL MEAN	200		60.7	2495	715

Range - 45.5 - 76.6
Standard Deviation - 5.71
Standard Error - 4.04

Table 37, Summary of length and dressed weight data over the range of age for anadromous Arctic char taken by gill net (5.5 in/ 14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 19, 1976.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	FORK LENGTH(CM) SD	DRESSED WEIGHT(G) MEAN	DRESSED WEIGHT(G) SD
6	1	1	45.5	-	950	-
7	6	4	50.0	3.0	1292	287
8	15	9	53.4	3.2	1707	351
9	33	20	58.7	4.4	2253	552
10	54	32	61.5	4.3	2575	594
11	35	21	63.4	4.1	2844	648
12	19	11	64.1	4.8	2800	680
13	3	2	60.7	2.6	2267	525
14	2	1	68.7	9.6	3525	955
17	1	1	76.6	-	4550	-
TOTAL MEAN	169		60.6	5.8	2478	731
MEAN AGE	10.1					

Standard Deviation - 1.51
Standard Error - 0.12
Survival Rate - 37.23
Age Classes Used - 11-17
Standard Error of Surv. - 4.99

Table 38. Distribution of age over the range of fork length (sexes combined*) for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 19, 1976.

Length Group cm	Age (Years) 6	7	8	9	10	11	12	13	14	17	Total Comb.	Average
45.0-49.9	1	3	3		1						8(4.7)**	7.6
50.0-54.9		3	7	6	1		1				18(10.7)	8.5
55.0-59.9			5	15	18	9	2	1			50(29.6)	9.8
60.0-64.9				8	24	13	8	2	1		56(33.1)	10.6
65.0-69.9				4	7	11	6				28(16.6)	10.7
70.0-74.9					3	2	1				6(3.6)	10.7
75.0-79.9							1		1	1	3(1.8)	14.3
Total Combined	1(0.6)**	6(3.6)	15(8.9)	33(19.5)	54(32.0)	35(20.7)	19(11.2)	3(1.8)	2(1.2)	1(.6)	169	
Av. Fork Length	45.5	50.0	53.4	58.7	61.6	63.4	64.1	60.7	68.7	76.6		

*The fish sampled were taken in dressed form and sex could not be determined.

**Bracketed figures in rows indicate percent of total fish aged.

Table 39. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Stony Point area, district of Keewatin, Northwest Territories, August 23 - 24, 1976.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond.** Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.	Weight (g) Average	Weight (g) Range	Cond. Factor
30.0-34.9	3 (1.5)***	34.3	473	433	400-450	1.0730	-	-	-	-	-	-	1 (1.1)	34.8	509	400	-	0.9491
35.0-39.9	5 (2.5)	37.7	634	610	550-800	1.1344	-	-	-	-	-	-	2 (2.3)	39.4	742	675	550-800	1.1029
40.0-44.9	11 (5.4)	42.1	893	886	750-1000	1.1903	6 (5.5)	42.4	900	875	750-1000	1.1470	5 (5.7)	41.7	881	900	850-950	1.2422
45.0-49.9	16 (7.9)	47.6	1307	1275	1000-1600	1.1767	11 (10.1)	47.9	1320	1255	1000-1600	1.1364	5 (5.7)	47.0	1267	1320	1100-1500	1.2652
50.0-54.9	34 (16.8)	53.2	1846	1901	1200-2350	1.2561	16 (14.7)	53.4	1857	1906	1200-2350	1.2483	18 (20.5)	53.1	1834	1897	1300-2250	1.2631
55.0-59.9	63 (31.2)	57.5	2349	2406	1850-2900	1.2605	31 (28.4)	58.0	2407	2497	2050-2900	1.2757	32 (36.4)	57.1	2287	2317	1850-2750	1.2458
60.0-64.9	48 (23.8)	61.8	2938	2929	2400-3700	1.2361	29 (26.6)	61.8	2938	2960	2400-3700	1.2530	19 (21.6)	61.9	2921	2882	2500-3500	1.2103
65.0-69.9	16 (7.9)	67.2	3809	3675	2850-4400	1.2091	12 (11.0)	67.1	3804	3654	2850-4400	1.2077	4 (4.5)	67.6	3816	3738	3100-4200	1.2134
70.0-74.9	3 (1.5)	72.6	4841	4617	4400-4950	1.2066	2 (1.8)	71.9	4726	4675	4400-4950	1.2591	1 (1.1)	74.2	5063	4500	-	1.1015
75.0-79.9	3 (1.5)	76.9	5787	5133	4850-5600	1.1265	2 (1.8)	77.9	6078	5275	4950-5600	1.1172	1 (1.1)	75.1	5251	4850	-	1.1450

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	202	202	109	109	88	88
Range :	34.0-78.2	400-5600	40.0-78.2	750-5600	34.8-75.1	400-4850
Mean :	56.7	2373	58.1	2537	56.1	2275
Stand. Dev. :	8.00	927	7.27	935	7.33	813
Stand. Error:	0.56	65	0.70	90	0.79	87

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0082) Fork length (cm)$^{3.1012}$

for males : Weight (g) = (0.0070) Fork length (cm)$^{3.1396}$

for females : Weight (g) = (0.0107) Fork length (cm)$^{3.0341}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: Condition factor = $\frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 40. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in / 14.0 cm mesh) during the commercial fishery, in the Stony Point area, district of Keewatin, Northwest Territories, August 23 - 24, 1976.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
5	1 (0.6)**	34.2	-	450	-	1.1250	-	-	-	-	-	-	-	-	-	-	-	-
6	2 (1.1)	40.4	36.3-44.5	775	550-1000	1.1423	1 (0.9)	44.5	-	1000	-	1.1348	-	-	-	-	-	-
7	5 (2.9)	40.2	34.8-46.7	770	400-1150	1.1401	1 (0.9)	46.7	-	1150	-	1.1291	3 (3.4)	38.9	34.8-42.1	700	400-900	1.1446
8	12 (6.9)	46.1	34.0-55.8	1188	450-2250	1.1568	7 (6.4)	48.5	42.6-55.8	1343	800-2250	1.1264	4 (4.5)	44.9	40.6-50.4	1100	850-1350	1.2130
9	37 (21.1)	53.4	40.0-61.4	1991	750-3000	1.2690	21 (19.3)	54.4	40.0-61.4	2090	750-3000	1.2585	16 (18.2)	52.0	40.7-58.0	1859	900-2500	1.2827
10	50 (28.6)	56.5	45.4-63.3	2312	1000-3400	1.2612	31 (28.4)	56.9	45.4-63.3	2379	1000-3400	1.2687	19 (21.6)	55.8	46.0-59.8	2203	1200-2700	1.2489
11	22 (12.6)	60.7	51.2-70.3	2870	1700-4400	1.2580	14 (12.8)	63.5	58.6-70.3	3264	2550-4400	1.2653	8 (9.1)	55.8	51.2-64.2	2181	1700-3150	1.2451
12	20 (11.4)	62.0	55.1-77.5	2848	2000-4950	1.1810	9 (8.3)	65.1	59.2-77.5	3250	2450-4950	1.1689	11 (12.5)	59.5	55.1-64.2	2518	2000-3150	1.1909
13	16 (9.1)	60.5	49.7-74.2	2744	1200-4950	1.1912	7 (6.4)	60.5	49.7-73.4	2764	1200-4950	1.1532	9 (10.2)	60.4	53.2-74.2	2728	2000-4500	1.2208
14	6 (3.4)	64.3	59.0-67.2	3242	2000-4050	1.1991	2 (1.8)	66.8	66.4-67.2	3950	3850-4050	1.3248	4 (4.5)	63.0	59.0-66.1	2888	2000-3500	1.1363
15	2 (1.1)	65.4	63.8-67.0	3825	3500-4150	1.3638	-	-	-	-	-	-	2 (2.3)	65.4	63.8-67.0	3825	3500-4150	1.3638
16	1 (0.6)	63.1	-	3200	-	1.2737	-	-	-	-	-	-	1 (1.1)	63.1	-	3200	-	1.2737
17	1 (0.6)	69.0	-	3100	-	0.9437	-	-	-	-	-	-	1 (1.1)	69.0	-	3100	-	0.9437
Number of fish	:	175						93						78				
Range in age	:	5-17						6-14						7-17				
Mean age	:	10.4						10.2						10.8				
Stand. Dev.	:	1.91						1.53						2.10				
Stand. Error	:	0.14						0.15						0.22				
Survival Rate	:	57.05***						48.33						63.16				
Age classes used	:	11-17						11-14						11-17				
Stand. Error Surv.	:	3.93						6.35						4.88				

* Condition factors were calculated from the formula: Condition factor = $\frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 41. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Stony Point area, district of Keewatin, Northwest Territories, August 23 - 24, 1976.

| Length Group (cm) | Age (years) | | |

Table 42. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in - 14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 19 - 21, 1977.

Length Group (cm)	Combined Sample: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.*	Average	Range	Cond.** Factor	Males: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.	Average	Range	Cond. Factor	Females: Number of fish	Av. Fork Lgth.(cm)	Weight (g): Cal.	Average	Range	Cond. Factor
45.0-49.9	3 (2.3)***	48.5	1482	1483	1350-1700	1.3024	3 (3.4)	48.5	1507	1483	1350-1600	1.3024	-	-	-	-	-	-
50.0-54.9	15 (11.7)	52.6	1868	1783	1450-2100	1.2269	10 (11.4)	52.6	1898	1810	1500-2100	1.2292	5 (12.5)	52.5	1828	1730	1450-2000	1.2024
55.0-59.9	36 (28.1)	57.5	2408	2488	2000-2950	1.3090	25 (28.4)	57.7	2469	2524	2000-2950	1.3153	11 (27.5)	57.0	2297	2405	2000-2850	1.2946
60.0-64.9	34 (26.6)	62.4	3041	3004	2200-3850	1.2362	16 (18.2)	62.2	3056	3050	2200-3850	1.2636	18 (45.0)	62.5	2966	2964	2650-3300	1.2119
65.0-69.9	21 (16.4)	67.2	3757	3912	3100-5000	1.2855	16 (18.2)	67.3	3823	4019	3450-5000	1.3133	5 (12.5)	66.8	3568	3570	3100-3800	1.1965
70.0-74.9	13 (10.2)	72.9	4739	4723	3900-6050	1.2188	12 (13.6)	73.1	4835	4792	4300-5300	1.2256	1 (2.5)	70.0	4063	3900	-	1.1370
75.0-79.9	5 (3.9)	75.8	5297	5090	4500-5300	1.1691	5 (5.7)	75.8	5359	5090	4500-5300	1.1691	-	-	-	-	-	-
85.0-89.9	1 (0.8)	87.0	7849	7000	-	1.0630	1 (1.1)	87.0	7928	7000	-	1.0630	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish :	128	128	88	88	40	40
Range :	46.4-87.0	1350-7000	46.4-87.0	1350-7000	51.0-70.0	1450-3900
Mean :	62.1	3116	62.8	3281	60.5	2755
Stand. Dev. :	7.18	1071	7.95	1194	4.77	598
Stand. Error:	0.64	95	0.85	128	0.76	96

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0230) Fork length $(cm)^{2.8528}$

for males : Weight (g) = (0.0245) Fork length $(cm)^{2.8409}$

for females : Weight (g) = (0.0305) Fork length $(cm)^{2.7774}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 43. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 19-21, 1977.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond.* Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor	Number of fish	Fork Length (cm) Mean	Fork Length (cm) Range	Weight (g) Mean	Weight (g) Range	Cond. Factor
7	6 (5.2)**	56.0	52.0-66.4	2358	1700-3750	1.3105	5 (6.0)	56.4	52.0-66.4	2490	1700-3750	1.3566	1 (3.1)	54.0	-	1700	-	1.0796
8	21 (18.3)	55.3	46.4-63.4	2202	1350-3100	1.2798	16 (19.3)	55.9	46.4-63.4	2241	1350-3100	1.2621	5 (15.6)	53.6	51.0-56.5	2080	1700-2450	1.3364
9	29 (25.2)	58.0	51.4-66.2	2479	1500-4050	1.2592	23 (27.7)	58.2	51.4-66.2	2498	1500-4050	1.2574	6 (18.8)	57.3	55.0-64.0	2408	2000-3300	1.2660
10	24 (20.9)	62.7	53.0-74.4	3181	1450-5000	1.2742	14 (16.9)	63.9	57.0-74.4	3464	2550-5000	1.3252	10 (31.3)	61.1	53.0-68.0	2785	1450-3800	1.2026
11	20 (17.4)	68.5	59.0-76.5	4113	2650-6050	1.2605	15 (18.1)	70.2	59.2-76.5	4450	2650-6050	1.2730	5 (15.6)	63.3	59.0-67.0	3100	2650-3700	1.2230
12	8 (7.0)	64.9	57.8-73.8	3488	2450-5250	1.2443	3 (3.6)	71.0	68.8-73.8	4683	4300-5250	1.3036	5 (15.6)	61.2	57.8-64.6	2770	2450-3250	1.2087
13	5 (4.3)	71.5	67.0-74.3	4620	4150-5250	1.2659	5 (6.0)	71.5	67.0-74.3	4620	4150-5250	1.2659	-	-	-	-	-	
14	1 (0.9)	74.5	-	4650	-	1.1246	1 (1.2)	74.5	-	4650	-	1.1246	-	-	-	-	-	
15	1 (0.9)	75.0	-	4500	-	1.0667	1 (1.2)	75.0	-	4500	-	1.0667	-	-	-	-	-	
Number of fish	: 115						83						32					
Range in age	: 7-15						7-15						7-12					
Mean age	: 9.7						9.7						9.9					
Stand. Dev.	: 1.62						1.70						1.39					
Stand. Error	: 0.15						0.19						0.24					
Survival Rate	: 50.85***						54.22						35.71					
Age classes used	: 10-15						10-15						11-12					
Stand. Error Surv.	: 4.56						5.40						12.15					

* Condition factors were calculated from the formula: Condition factor = $\frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 44. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in (14.0 cm mesh) during the commercial fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 19 - 21, 1977.

Length Group (cm)	Age (years)																			
	7		8		9		10		11		12		13		14		15		Total			
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	Combined	Av. Age
45.0-49.9			3																3		3 (2.6)*	8.0
50.0-54.9	2	1	4	3	3			1											9	5	14 (12.2)	8.1
55.0-59.9	2		5	2	15	5	2	2	1	1		1							25	11	36 (31.3)	8.7
60.0-64.9			4		4	1	7	6		2		4							15	13	28 (24.4)	9.9
65.0-69.9	1				1		4	1	7	2	1		2						14	5	19 (16.5)	10.7
70.0-74.9							1		5		2		3		1				10		10 (8.7)	12.0
75.0-79.9									4								1		5		5 (4.4)	11.8
Total by sex	5	1	16	5	23	6	14	10	15	5	3	5	5		1		1		78 (67.8)	37 (32.2)		
Total combined	6 (5.2)*		21 (18.3)		29 (25.2)		24 (20.9)		20 (17.4)		8 (7.0)		5 (4.3)		1 (0.9)		1 (0.9)				115	
Av. fork length	56.0		55.3		58.0		62.7		68.4		64.9		71.5		74.5		75.0					

* Bracketed figures in columns/rows indicate percent of total fish aged.

Table 45. Summary of length and weight data, and weight data over the range of fork lengths, combined and by category, for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Stony Point area, district of Keewatin, Northwest Territories, August 23 - September 6, 1977.

Length Group (cm)	Combined Sample						Males						Females					
	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond. Factor**	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond. Factor	Number of fish	Av. Fork Lgth.(cm)	Weight (g) Cal.*	Weight (g) Average	Weight (g) Range	Cond. Factor
35.0-39.9	1 (0.5)***	38.9	655	700	-	1.1892	1 (0.6)	38.9	646	700	-	1.1892	-	-	-	-	-	-
40.0-44.9	5 (2.5)	41.9	832	810	500-1200	1.0737	5 (3.1)	41.9	822	810	500-1200	1.0737	-	-	-	-	-	-
45.0-49.9	4 (2.0)	47.3	1246	1063	800-1200	0.9947	3 (1.9)	47.3	1219	1017	800-1200	0.9691	1 (2.6)	48.2	1344	1200	-	1.0716
50.0-54.9	21 (10.5)	53.6	1838	1893	1450-2300	1.2289	12 (7.4)	53.7	1842	1879	1450-2300	1.2128	9 (23.7)	53.4	1826	1911	1450-2300	1.2304
55.0-59.9	69 (34.5)	57.5	2304	2326	1500-3300	1.2227	55 (34.0)	57.6	2313	2352	1850-2950	1.2282	14 (36.8)	56.9	2209	2225	1500-3300	1.2012
60.0-64.9	48 (24.0)	62.3	2982	2979	2150-4000	1.2291	42 (25.9)	62.3	2984	2989	2150-4000	1.2320	6 (15.8)	62.1	2870	2908	2500-3400	1.2085
65.0-69.9	18 (9.0)	66.8	3733	3875	3000-5100	1.2967	14 (8.6)	66.6	3707	3929	3100-5100	1.3250	4 (10.5)	67.4	3668	3688	3000-4300	1.1977
70.0-74.9	25 (12.5)	72.1	4772	4600	3700-5850	1.2243	22 (13.6)	72.2	4819	4641	3700-5850	1.2303	3 (7.9)	71.4	4360	4300	3700-4900	1.1798
75.0-79.9	8 (4.0)	76.8	5848	5525	5000-6350	1.2199	7 (4.3)	76.8	5890	5600	5100-6350	1.2347	1 (2.6)	76.5	5361	5000	-	1.1168
80.0-84.9	1 (0.5)	80.5	6804	6200	-	1.1885	1 (0.6)	80.5	6863	6200	-	1.1885	-	-	-	-	-	-

Parameter	Fork Length	Weight	Fork Length	Weight	Fork Length	Weight
No. of fish	200	200	162	162	38	38
Range	38.9-80.5	500-6350	38.9-80.5	500-6350	48.2-76.5	1200-5000
Mean	61.1	2937	61.5	3011	59.4	2622
Stand. Dev.	7.63	1164	7.82	1200	6.61	946
Stand. Error	0.54	83	0.62	95	1.09	156

* Calculated weights were derived from the following equation, for the combined sample: Weight (g) = (0.0050) Fork length (cm)$^{3.2185}$

for males : Weight (g) = (0.0044) Fork length (cm)$^{3.3296}$

for females : Weight (g) = (0.0122) Fork length (cm)$^{2.9957}$

and represent the calculated weight for the average fork length per length group

** Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Average weight (g)}}{\text{Average fork length (cm)}^3} \times 100$

*** Bracketed figures indicate percent of number sampled by category.

Table 46. Summary of age data, and length and weight data over the range of ages, combined and by category, for anadromous Arctic char taken by gill net (5.5 in - 14.0 cm mesh) during the commercial fishery in the Stony Point area, district of Keewatin, Northwest Territories, August 23 - September 6, 1977.

Age (No. of annuli)	Combined Sample						Males						Females					
	Number of fish	Fork Length (cm)		Weight (g)		Cond.* Factor	Number of fish	Fork Length (cm)		Weight (g)		Cond. Factor	Number of fish	Fork Length (cm)		Weight (g)		Cond. Factor
		Mean	Range	Mean	Range			Mean	Range	Mean	Range			Mean	Range	Mean	Range	
6	1 (0.6)**	38.9	-	700	-	1.1892	1 (0.7)	38.9	-	700	-	1.1892	-	-	-	-	-	-
7	4 (2.3)	45.8	40.3-55.1	963	500-2000	0.8883	4 (2.8)	45.8	40.3-55.1	963	500-2000	0.8883	-	-	-	-	-	-
8	17 (9.6)	53.5	42.5-63.8	1853	850-3300	1.1708	12 (8.5)	54.0	42.5-63.8	1929	850-3300	1.1782	5 (14.3)	52.4	48.2-54.1	1670	1200-1900	1.1831
9	32 (18.1)	57.3	43.5-66.5	2334	1200-3550	1.2253	26 (18.3)	57.5	43.5-66.5	2352	1200-3550	1.2208	6 (17.1)	56.3	51.0-58.7	2258	1450-3300	1.2443
10	43 (24.3)	59.2	50.3-68.0	2618	1500-4450	1.2439	34 (23.9)	59.9	50.3-68.0	2741	1550-4450	1.2374	9 (25.7)	56.5	54.0-60.2	2156	1500-2650	1.1926
11	30 (16.9)	62.7	54.1-80.5	3202	1800-6200	1.2365	25 (17.6)	63.2	54.1-80.5	3292	1800-6200	1.2629	5 (14.3)	60.5	56.5-63.5	2750	2100-3400	1.2245
12	20 (11.3)	64.7	53.5-76.5	3440	1900-5700	1.2256	16 (11.3)	65.4	54.5-76.5	3516	1900-5700	1.2062	4 (11.4)	61.9	53.5-69.0	3138	2300-4300	1.3033
13	16 (9.0)	67.6	58.6-76.5	3966	2200-5650	1.2527	14 (9.9)	67.3	58.6-76.5	3968	2200-5650	1.2632	2 (5.7)	69.3	66.2-72.3	3950	3000-4900	1.1653
14	7 (4.0)	69.1	60.5-78.4	4014	2600-5700	1.1770	6 (4.2)	68.8	60.5-78.4	4067	2600-5700	1.1980	1 (2.9)	70.6	-	3700	-	1.0514
15	3 (1.7)	70.1	63.6-74.0	3983	2850-4800	1.1336	2 (1.4)	73.4	72.8-74.0	4550	4300-4800	1.1495	1 (2.9)	63.6	-	2850	-	1.1078
16	3 (1.7)	73.7	71.2-76.5	4417	3950-5000	1.1010	1 (0.7)	73.7	-	3950	-	0.9948	2 (5.7)	73.9	71.2-76.5	4650	4300-5000	1.1541
17	1 (0.6)	78.4	-	2100	-	1.0543	1 (0.7)	58.4	-	2100	-	1.0543	-	-	-	-	-	-
Number of fish	:	177					142						35					
Range in age	:	6-17					6-17						8-16					
Mean age	:	10.6					10.6						10.7					
Stand. Dev.	:	1.98					1.93						2.18					
Stand. Error	:	0.15					0.16						0.37					
Survival Rate	:	57.30***					55.86						64.10					
Age classes used	:	11-17					11-17						11-16					
Stand. Error Surv.	:	3.61					4.09						7.42					

* Condition factors were calculated from the formula: $\text{Condition factor} = \frac{\text{Mean Weight (g)}}{\text{Mean Fork Length (cm)}^3} \times 100$

** Bracketed figures indicate percent of number aged by category.

*** Survival rates were determined after the method of Robson & Chapman (1961).

Table 47. Distribution of age over the range of fork lengths by sex for anadromous Arctic char taken by gill net (5.5 in /14.0 cm mesh) during the commercial fishery in the Stony Point area, district of Keewatin, Northwest Territories, August 23 - September 6, 1977.

Length Group (cm)	Age (years) 6 M	6 F	7 M	7 F	8 M	8 F	9 M	9 F	10 M	10 F	11 M	11 F	12 M	12 F	13 M	13 F	14 M	14 F	15 M	15 F	16 M	16 F	17 M	17 F	Total M	Total F	Total Combined	Av. Age
35.0-39.9	1																								1		1 (0.6)*	6.0
40.0-44.9			2		2		1																		5		5 (2.8)	8.2
45.0-49.9			1		1	1																			2	1	3 (1.7)	8.0
50.0-54.9					2	4	3	1	2	2	2		2	1											11	8	19 (10.7)	9.6
55.0-59.9			1		6		17	5	15	6	7	2	2		2								1		50	14	64 (36.2)	9.8
60.0-64.9					1		4		13	1	7	3	5	1	4		3			1					37	6	43 (24.3)	11.0
65.0-69.9							1		4		5		6	2	2	1									18	3	21 (11.9)	11.4
70.0-74.9											3		1		4	1	1	1	2		1	1			12	3	15 (8.5)	13.3
75.0-79.9															2		2					1			4	1	5 (2.8)	14.0
80.0-84.9											1														1		1 (0.6)	11.0
Total by sex	1		4		12	5	26	6	34	9	25	5	16	4	14	2	6	1	2	1	1	2	1		141 (79.7)	36 (20.3)		
Total combined	1 (0.6)*		4 (2.3)		17 (9.6)		32 (18.1)		43 (24.3)		30 (16.9)		20 (11.3)		16 (9.0)		7 (4.0)		3 (1.7)		3 (1.7)		1 (0.6)				177	
Av. fork length	38.9		45.8		53.5		57.3		59.2		62.7		64.7		67.6		69.1		70.1		73.7		58.4					

* Bracketed figures in columns/rows indicate percent of total fish aged.

Table 48. Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5in/14cm mesh) during the commercial test fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 6-18, 1979.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	SD
45	1	1	47.8	1200	-
50	5	5	53.5	1780	130
55	23	22	57.7	2141	226
60	38	36	62.2	2712	305
65	22	21	67.2	3216	479
70	8	8	72.4	4163	460
75	7	7	76.0	4407	710
80	1	1	80.5	5400	-
TOTAL	105				
MEAN			63.6	2883	848

Range - 47.8 - 80.5
Standard Deviation - 6.28
Standard Error - 6.13

Table 49. Summary of length and dressed weight data over the range of age for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial test fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 6-18, 1979.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	SD	DRESSED WEIGHT(G) MEAN	SD
7	3	4	55.4	1.7	1800	200
8	11	13	57.3	3.2	2177	364
9	15	18	60.5	2.6	2543	406
10	21	25	62.7	5.2	2852	724
11	19	23	65.4	5.8	3045	839
12	11	13	68.7	8.4	3691	1219
13	3	4	67.5	9.2	3467	1012
14	1	1	68.5	-	3500	-
TOTAL	84					
MEAN			63.0	6.4	2854	875
MEAN AGE	10.1					

Standard Deviation - 1.52
Standard Error - 0.17
Survival Rate - 37.74
Age Classes Used - 11 - 14
Standard Error of Surv. - 6.56

Table 50. Distribution of age over the range of fork length (sexes combined)* for anadromous Arctic Char taken by gillnet (5.5"/14.0cm mesh) during a commercial test fishery in the Corbett Inlet area, district of Keewatin, Northwest Territories, August 6 - 18, 1979.

Length Group (cm)	Age (Years) 7	8	9	10	11	12	13	14	Total Combined	Average
45.0-49.9				1					1(1.2)**	10.0
50.0-54.9	1	2				1			4(4.8)	8.8
55.0-59.9	2	6	6	5	3		1		23(27.4)	9.2
60.0-64.9		3	8	9	6	3			29(34.5)	9.9
65.0-69.9			1	3	7	2		1	14(16.7)	11.0
70.0-74.9				3	1	2	2		8(9.5)	11.4
75.0-79.9					2	2			4(4.8)	11.5
80.0-84.9						1			1(1.2)	12.0
Total Combined	3(3.6)	11(13.1)	15(17.9)	21(25.0)	19(22.6)	11(13.1)	3(3.6)	1(1.2)	84	
Av. Fork Length	55.5	57.4	60.5	62.7	65.4	68.7	67.5	68.5	(63.6)	

*The fish sampled were taken in dressed form and sex could not be determined

**Bracketed figures in columns/rows indicate percent of total fish aged.

Table 51. Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5 in/14cm mesh) during the commercial test fishery at Rankin Inlet, district of Keewatin, Northwest Territories, August 2 - 4, 1979.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	SD
40	2	1	43.8	850	71
45	4	3	47.5	1038	170
50	8	5	53.0	1700	144
55	65	44	57.5	2004	209
60	42	28	61.8	2467	287
65	16	11	66.8	2916	296
70	9	6	71.9	3800	593
75	2	1	76.6	4225	460
80	1	1	82.7	5700	-
TOTAL	149				
MEAN			60.4	2338	717

Range - 43.2 - 82.7
Standard Deviation - 1.42
Standard Error - 1.25

Table 52. Summary of length and dressed weight data over the range of age for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial test fishery in the Rankin Inlet area, district of Keewatin, Northwest Territories, August 2 - 4, 1979.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	SD	DRESSED WEIGHT(G) MEAN	SD
6	1	1	46.0	-	1200	-
7	1	1	44.5	-	900	-
8	10	8	57.4	4.7	2055	624
9	35	27	58.0	5.0	2054	468
10	33	26	58.6	3.6	2159	378
11	24	19	62.3	5.1	2618	840
12	18	14	63.5	6.5	2589	777
13	5	4	65.2	5.2	2930	715
14	1	1	61.3	-	2200	-
TOTAL	128					
MEAN			59.8	5.7	2282	667
MEAN AGE	10.1					

Standard Deviation - 1.41
Standard Error - 0.13
Survival Rate - 49.69
Age Classes Used - 10 - 14
Standard Error of Surv. - 3.94

Table 53. Distribution of age over the range of fork length (sexes combined)* for anadromous Arctic char taken by gillnet (5.5"/14.0cm mesh) during a commercial test fishery in Rankin Inlet, district of Keewatin, Northwest Territories, August 2-4, 1979.

Length Group	Age (years) 6	7	8	9	10	11	12	13	14	Total Combined	Average
40.0-44.9		1		1						2(1.6)*	8.0
45.0-49.9	1		1	2						4(3.1)	8.0
50.0-54.9				2	5	1				8(6.3)	9.9
55.9-59.9			6	19	18	8	7	1		59(46.1)	9.9
60.0-64.9			2	9	6	9	5	2	1	34(26.6)	10.5
65.0-69.9			1	2	4	3	2	1		13(10.2)	10.5
70.0-74.9						3	2	1		6(4.7)	11.7
75.0-79.9							2			2(1.6)	12.0
Total Combined	1(0.8)	1(0.8)	10(7.8)	35(27.3)	33(25.8)	24(18.8)	18(14.1)	5(3.9)	1(0.8)	128	
Av. Fork Length	46.0	44.5	57.5	58.0	58.0	62.4	63.5	65.2	61.3	59.8	

*The fish sampled were taken in dressed form and sex could not be determined

**Bracketed figures in columns/rows indicated percent of total fish aged.

Table 54. Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial test fishery in the Baker Foreland area, district of Keewatin, Northwest Territories, August 13, 1979.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	SD
45	4	4	49.2	1200	141
50	15	15	53.2	1707	183
55	32	32	57.5	2075	235
60	24	24	62.1	2554	254
65	18	18	66.9	3122	380
70	6	6	71.1	3883	402
75	1	1	78.0	4600	-
TOTAL	100				
MEAN			60.4	2422	720

Range - 48.0 - 78.0
Standard Deviation - 5.99
Standard Error - 5.99

Table 55. Summary of length and dressed weight data over the range of age for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial test fishery in the Baker Foreland area, district of Keewatin, Northwest Territories, August 13, 1979.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	SD	DRESSED WEIGHT(G) MEAN	SD
8	3	3	57.3	2.7	2100	300
9	13	15	55.9	5.2	1946	591
10	20	23	58.6	4.9	2260	544
11	29	34	60.1	5.7	2372	657
12	12	14	64.4	5.5	3025	785
13	3	3	63.5	3.8	2600	500
14	3	3	65.8	6.6	2800	854
15	2	2	63.0	5.3	2700	707
17	1	1	70.0	-	3300	-
TOTAL	86					
MEAN			60.1	5.9	2405	694
MEAN AGE	10.8					

Standard Deviation - 1.59
Standard Error - 0.17
Survival Rate - 48.72
Age Classes Used - 12 - 17
Standard Error or Surv. - 8.04

Table 56. Distribution of age over the range of fork length (sexes combined)* for anadromous Arctic Char taken by gillnet (5.5"/14.0 cm mesh) during a commercial test fishery in the Baker Foreland area, district of Keewatin, Northwest Territories, August 13, 1979.

Length Group cm	Age (Years) 8	9	10	11	12	13	14	15	17	Total Comb.	Average
45.0-49.9		2	1	1						4(4.7)**	9.8
50.0-54.9	1	4	3	5	1					14(16.3)	10.1
55.0-59.9	2	3	7	10	1	1	1	1		26(30.2)	10.7
60.0-64.9		4	7	5	4					20(23.3)	10.5
65.0-69.9			2	7	4	2	1	1		17(19.8)	11.8
70.0-74.9				1	2		1		1	5(5.8)	13.2
Total Combined	3(3.5)	13(15.1)	20(23.3)	29(33.7)	12(14.0)	3(3.5)	3(3.5)	2(2.3)	1(1.2)	86	
Av. Fork Length	57.3	55.9	58.6	60.1	64.4	63.5	65.8	63.1	70.0		

*The fish sampled were taken in dressed form and sex could not be determined.

**Bracketed figures in columns/rows indicate percent of total fish aged.

Table 57 Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial test fishery in the Josephine River area, district of Keewatin, Northwest Territories, August 25, 1979.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	SD
45	1	2	45.5	1000	-
50	5	8	54.1	1680	45
55	35	56	57.8	2146	259
60	15	24	61.3	2487	217
65	3	5	67.6	3067	115
70	1	2	74.8	4600	-
75	3	5	77.8	4833	289
TOTAL	63				
MEAN			59.8	2383	740

Range - 45.5 - 79.0
Standard Deviation - 5.73
Standard Error - 0.72

Table 58. Summary of length and dressed weight data over range of age for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial test fishery in the Josephine River area, district of Keewatin, Northwest Territories, August 25, 1979.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	SD	DRESSED WEIGHT(G) MEAN	SD
7	1	2	45.5	-	1000	-
8	4	9	60.1	1.1	2450	129
9	13	29	58.6	2.3	2262	272
10	15	33	58.7	2.8	2200	346
11	4	9	57.1	2.3	2050	387
12	5	11	59.5	2.8	2360	391
13	1	2	74.8	-	4600	-
14	2	4	73.0	5.7	4000	1414
TOTAL	45					
MEAN			59.4	5.0	2351	655
MEAN AGE	10.0					

Standard Deviation - 1.53
Standard error - 0.23
Survival Rate - 54.17
Age Classes Used - 11 - 14
Standard Error of Surv. - 9.74

Table59. Distribution of age over the range of fork length (sex combined)* for anadromous Arctic char taken by gillnet (5.5"/14.0 cm mesh) during a commercial test fishery in the Josephine River area, district of Keewatin, Northwest Territories, August 25, 1979.

Length Group (cm)	Age (years) 7	8	9	10	11	12	13	14	Total Combined	Average
45.0-49.9	1								1(2.2)**	7.0
50.0-54.9				2					2(4.4)	10.0
55.0-59.9		2	10	7	4	3			26(57.8)	9.9
60.0-64.9		2	3	6		2			13(28.9)	9.8
65.0-69.9								1	1(2.2)	14
70.0-74.9							1		1(2.2)	13
75.0-79.9								1	1(2.2)	14
Total Combined	1(2.2)**	4(8.9)	13(28.9)	15(53.3)	4(8.9)	5(11.1)	1(2.2)	2(4.4)	45	
Av. Fork Length	45.5	60.1	58.6	58.7	57.2	39.5	74.8	73.0	59.4	

*The fish sampled were in dressed form and sex could not be determined

**Bracketed figures in columns/rows indicate percent of total fish aged.

Table 60. Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 11-15, 1980.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	SD
45	1	0	49.2	1500	-
50	6	2	53.7	2279	423
55	29	12	58.1	2436	222
60	82	33	62.3	2963	409
65	99	39	66.7	3662	432
70	23	9	71.5	4422	632
75	9	4	77.2	5400	927
80	2	1	80.3	5300	495
TOTAL	251				
MEAN			64.8	3395	843

Range - 49.2 - 80.5
Standard Deviation - 1.75
Standard Error - 1.61

Table 61. Summary of length and dressed weight data over the range of age for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 11-15, 1980.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	SD	DRESSED WEIGHT(G) MEAN	SD
7	1	1	62.0	-	1850	-
8	13	11	62.1	3.9	2983	628
9	41	34	63.0	4.2	3027	657
10	34	29	66.0	4.4	3576	710
11	12	10	65.0	3.2	3313	550
12	6	5	67.4	2.7	3675	886
13	4	3	69.4	3.0	3813	239
14	4	3	69.3	5.0	3875	900
15	3	3	72.5	5.0	4217	869
17	1	1	80.5	-	4950	-
TOTAL	119					
MEAN			65.0	4.8	3332	756
MEAN AGE	10.0					

Standard Deviation - 5.09
Standard Error - 0.40
Survival Rate - 53.68
Age classes used - 10 - 17
Standard Error of Surv. - 4.29

Table 62. Distribution of age over the range of fork length (sexes combined)* for anadromous Arctic char taken by gillnet (5.5"/14.0 cm mesh) during the commercial fishery at Ferguson River, district of Keewatin, Northwest Territories, August 11-15, 1980.

Length Group(cm)	Age (years) 7	8	9	10	11	12	13	14	15	17	Total Combined	Average
50.0-54.9		1	1								2(1.7)**	8.5
55.0-59.9		3	8	2							13(10.9)	8.9
60.0-64.9	1	5	16	10	6						38(31.9)	9.4
65.0-69.9		4	15	18	5	5	1	3	1		52(43.7)	10.2
70.0-74.9				3	1	1	3		1		9(7.6)	11.9
75.0-79.9			1	1				1	1		4(3.3)	12.0
80.0-84.9										1	1(0.8)	17.0
Total Combined	1(0.8)**	13(10.9)	41(34.5)	34(28.6)	12(10.1)	6(5.0)	4(3.4)	4(3.4)	3(2.5)	1(0.8)	119	
Av. Fork Length	62.0	62.1	63.0	66.0	65.0	67.4	69.4	69.3	72.5	80.5		

* Fish sampled were taken in dressed form and sex could not be determined.
** Bracketed figures in columns/rows indicate percent of total fish aged.

Table 63. Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5 in/14.0 cm mesh) during the commercial fishery in the Rankin Inlet area, district of Keewatin, Northwest Territories, August 1 - 6, 1980.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	SD
50	4	4	52.8	1525	189
55	37	35	57.3	2097	202
60	41	39	61.9	2517	179
65	16	15	67.2	3081	496
70	6	6	72.2	3633	585
75	1	1	76.0	4900	-
80	1	1	81.5	5300	-
TOTAL	106				
MEAN			61.7	2530	652

Range - 51.0 - 81.5
Standard Deviation - 5.33
Standard Error - 5.17

Table 64 Summary of length and dressed weight data over the range of age for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial fishery in the Rankin Inlet area, district of Keewatin, Northwest Territories, August 1 - 6, 1980.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	SD	DRESSED WEIGHT(G) MEAN	SD
8	10	11	56.7	2.9	2050	415
9	14	15	60.1	3.6	2311	411
10	42	46	60.9	3.5	2427	369
11	16	18	62.5	5.0	2644	770
12	3	3	67.7	7.3	3400	1300
13	1	1	81.5	-	5300	-
14	4	4	68.6	4.1	3200	606
15	1	1	72.2	-	3400	-
TOTAL	91					
MEAN			61.5	5.2	2514	657
MEAN AGE	10.1					

Standard Deviation - 1.41
Standard Error - 0.15
Survival Rate - 46.67
Age Classes Used - 11 - 15
Standard Error of Surv. - 7.29

Table 65. Distribution of age over the range of fork length (sexes combined)* for anadromous Arctic char taken by gillnet (5.5"/14.0 cm mesh) during the commercial fishery at Rankin Inlet, district of Keewatin, Northwest Territories, August 1 - 6, 1980.

Length Group(cm)	Age (years) 8	9	10	11	12	13	14	15	Total Combined	Average
50.0-54.9	1	1							2(2.2)**	8.5
55.0-59.9	7	5	17	5					34(37.4)	9.6
60.0-64.9	2	7	19	7	2				37(40.7)	10.0
65.0-69.9		1	6	3			3		13(14.3)	11.1
70.0-74.9				1			1	1	3(3.3)	13.3
75.0-75.9					1				1(1.1)	12.0
80.0-84.9						1			1(1.1)	13.0
Total Combined	10(11.0) **	14(15.4)	42(46.2)	16(17.6)	3(3.3)	1(1.1)	4(4.4)	1(1.1)	91	
Av. Fork Length	56.7	60.1	60.9	62.5	67.7	81.5	68.6	72.2		

* Fish sampled were taken in dressed form and sex could not be determined.

** Bracketed figures in columns/rows indicate percent of total fish aged.

Table 66. Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin Northwest Territories, August 8-11, 1981.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	DRESSED WEIGHT(G) SD
50	7	7	53.9	1929	160
55	23	24	57.8	2348	233
60	32	33	62.7	2928	397
65	25	26	67.4	3575	399
70	5	5	71.6	4140	270
75	4	4	76.3	5175	359
TOTAL	96				
MEAN			63.1	3036	811

Range - 52.6 - 77.9
Standard Deviation - 5.56
Standard Error - 5.57

Table 67. Summary of length and dressed weight data over the range of age for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial fishery in the Ferguson River area, district of Keewatin, Northwest Territories, August 8-11, 1981.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	FORK LENGTH(CM) SD	DRESSED WEIGHT(G) MEAN	DRESSED WEIGHT(G) SD
7	3	5	55.3	1.5	2000	0
8	10	18	56.8	2.9	2250	354
9	16	28	59.0	2.7	2569	411
10	9	16	62.2	3.3	2922	620
11	8	14	62.3	4.4	2938	678
12	5	9	66.1	2.3	3180	705
13	4	7	66.4	1.5	3475	96
15	1	2	68.2	-	3400	-
20	1	2	63.0	-	3300	-
TOTAL	57					
MEAN			60.8	4.4	2735	612
MEAN AGE	10.0					

Standard Deviation - 2.20
Standard Error - 0.29
Survival Rate - 59.09
Age Classes Used - 10 - 20
Standard Error of Surv. - 6.17

Table 68. Distribution of age over the range of fork length (sexes combined)* for anadromous Arctic char taken by gill net (5.5"/14.0 cm mesh) during the commercial fishery at Ferguson River, district of Keewatin, Northwest Territories, August 8-11, 1981.

Length Group(cm)	Age (years) 7	8	9	10	11	12	13	15	20	Total Combined	Average
50.0-54.9	2	3	1							6(10.5)**	7.8
55.0-59.9	1	5	10	3	2					21(36.8)	9.0
60.0-64.9		2	4	5	5	2	1		1	20(35.1)	10.7
65.0-69.9			1	1	1	2	3	1		9(15.8)	12.0
70.0-74.9						1				1(1.8)	12.0
Total Combined	3(5.3)**	10(17.5)	16(28.1)	9(15.8)	8(14.0)	5(8.8)	4(7.0)	1(1.8)	1(1.8)	57	
Av. Fork Length	55.3	56.8	59.0	62.2	62.3	66.1	66.4	68.2	63.0		

* The fish sampled were taken in dressed form and sex could not be determined.
** Bracketed figures in columns/rows indicate percent of total fish aged.

Table 69. Summary of length and dressed weight data over the range of fork lengths for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial fishery in the Rankin Inlet area, district of Keewatin, Northwest Territories, August 1 - 7, 1981.

LENGTH INTERVAL (CM)	NO.	PERCENT	MEAN FORK LENGTH(CM)	DRESSED WEIGHT(G) MEAN	DRESSED WEIGHT(G) SD
50	3	3	53.1	1667	321
55	26	25	58.4	2088	197
60	46	45	62.3	2472	296
65	26	25	67.0	3123	438
70	2	2	70.5	3500	0
TOTAL	103				
MEAN			62.4	2536	528

Range - 51.0 - 71.0
Standard Deviation - 3.95
Standard Error - 3.89

Table 70. Summary of length and dressed weight data over the range of age for anadromous Arctic char taken by gill net (5.5 in/14 cm mesh) during the commercial fishery in the Rankin Inlet area, district of Keewatin, Northwest Territories, August 1 - 7, 1981.

AGE (YR)	NO.	PERCENT	FORK LENGTH(CM) MEAN	FORK LENGTH(CM) SD	DRESSED WEIGHT(G) MEAN	DRESSED WEIGHT(G) SD
9	11	13	59.3	3.2	2291	359
10	20	24	62.3	3.1	2585	506
11	23	27	62.3	3.3	2557	522
12	20	24	63.5	2.9	2650	493
13	7	8	63.3	6.8	2643	757
14	1	1	61.1	-	2400	-
15	2	2	65.4	7.9	2950	778
TOTAL	84					
MEAN			62.3	3.8	2565	517
MEAN AGE	11.0					

Standard Deviation - 1.35
Standard Error - 0.39
Survival Rate - 34.09
Age Classes Used - 12 - 15
Standard Error of Surv. - 7.03

Table 71. Distribution of age over the range of fork length (sexes combined)* for anadromous Arctic char taken by gillnet (5.5 in/14.0 cm mesh) during the commercial fishery in the Rankin Inlet area, district of Keewatin, August 1-7, 1981.

Length Group(cm)	Age (years) 9	10	11	12	13	14	15	Total Combined	Average
50.0-54.9	1				1			2(2.4)**	11.0
55.0-59.9	5	5	6	3	2		1	22(26.2)	11.0
60.0-64.9	4	10	12	11		1		38(45.2)	11.0
65.0-69.9	1	5	5	6	3			20(23.8)	11.0
70.0-74.9					1		1	2(2.4)	14.0
Total Combined	11(13.1)**	20(23.8)	23(27.4)	20(23.8)	7(8.3)	1(1.2)	2(2.4)	84	
Av. Fork Length	59.3	62.3	62.3	63.5	63.3	61.1	65.4		

* Fish sampled were taken in dressed form and sex could not be determined.
** Bracketed figures in columns/rows indicate percent of total fish aged.

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